Joint Air Operations Planning Process
Transition Version

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HTML Version: http://arpi.isx.com/community/doma.html (html form)

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Contents
coming later…

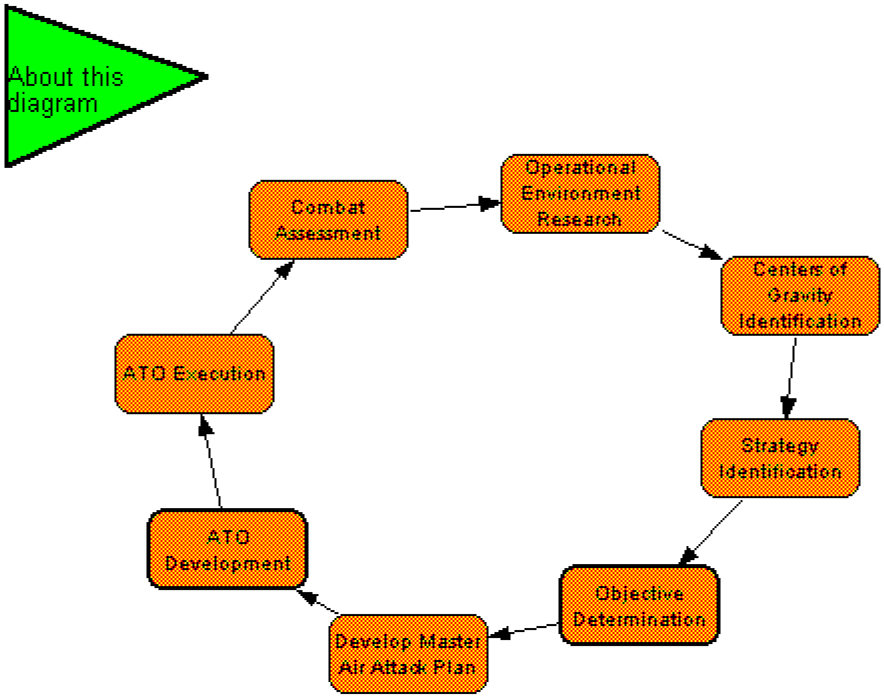
1. Air Operations Planning Model

This model is intended to represent the "transition" version of air operations planning. The airforce is in the process of reengineering its planning process and this model is a representation of the current planning processes Checkmate practices and teaches at the numbered airforces during planning exercises.
This model has been reviewed by Checkmate at various points but I would not consider the model 100
The model consists of four types of diagrams: structure, task, participation, product requirements. The structure diagrams show the notional organization charts for a joint task force. The JFACC branch is expanded into a detailed organization chart. The task diagrams show the basic steps involved joint air operations planning. The task diagrams are not intended to show temporal or sequencing information. They do show basic flow of the steps. The participation diagrams show which people/groups are primarily responsible for the execution of each step in the task diagrams. The product requirements diagrams show the products which are the input and output of each step in the task model.
The development of this model of air operation planning was developed by AIAI and ISX with the help and expertise of planners in Checkmate and Dave Hess of SAIC.

1.1. Links to other cards

- *Joint Air Operations Planning Process*
- *Joint Structure*
- *Joint Air Operations Product Requirements*
- *Joint Air Operations Planning Participation*

2. Joint Air Operations Planning Process



2.1. Nodes

2.1.1. About this diagram

- **type:** About
- **Linked to:** *About Joint Air Operations Planning Process*

2.1.2. Objective Determination

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page ix, III-3, 4
- **Aliases:**
- **Definition:** Objectives determination defines and quantifies objectives that will contribute to the accomplishment of the JFC's operation or campaign objectives.
- **Linked to:** *Objective Determination*

2.1.3. Strategy Identification

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page x, III-4
- **Aliases:**
- **Definition:** The joint air strategy states how the JFACC plans to exploit joint air capabilities/forces to support the JFC's objectives.

2.1.4. Operational Environment Research

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page ix, III-3, III-4
- **Aliases:**
- **Definition:** This phase is focused on gaining information about friendly and adversary capabilities and intentions, doctrine, and the environment in which the operations will take place. The goal of this phase is to gain an understanding of the theater of operations, the adversary, and friendly forces available to accomplish the JFC's objectives.

2.1.5. Centers of Gravity Identification

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page x, III-5
- **Aliases:** COG
- **Definition:** Centers of Gravity identification is the identification of those adversary COGs which should be attacked to satisfy the JFC's strategic, operational, and tactical objectives and friendly COGs that should be defended.

2.1.6. ATO Development

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3056.1 page x, III-6
- **Aliases:**
- **Definition:** ATO development details how joint air operation will support the JFC's operation or campaign plan. During this phase, planners integrate the efforts of joint capabilities/forces, prioritize objectives and targets while accounting for current and potential threats, and conduct target development/system analysis. They also phase joint air operations with the JFC's operation or campaign plan, indicating what capabilities/forces will be required to achieve joint air operation objectives. Finally, during this phase, planners will complete a sustainability assessment and delineate the specific procedures for allocating, tasking, and exercising C2 of available air capabilities/forces.
- **Linked to:** *ATO Development*

2.1.7. Develop Master Air Attack Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:** MAAP
- **Definition:** This activity is the fist step in the actual mission planning process. The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions throughout the sortie period.

2.1.8. ATO Execution

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** ATO execution is the process of implementing the instructions in the ATO with real assets and real munitions.

2.1.9. Combat Assessment

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman; Checkmate session 9-96 Major Mark Alred Major Steve Cunico
- **Aliases:**
- **Definition:** Combat assessment is an "assessment of how the air operations plan is being prosecuted." Assessment seeks to understand the effect that the attacker had on the target and to measure this effect against the plan at multiple levels (campaign, force selection, mission integration, execution). After assessing the effects that the battle had, the planner can better understand how upcoming and previous plans should be affected. Combat assessment encompasses force application, LOG, ISR and air defense.

2.2. Links to other cards

- *About Joint Air Operations Planning Process*
- *Objective Determination*
- *ATO Development*

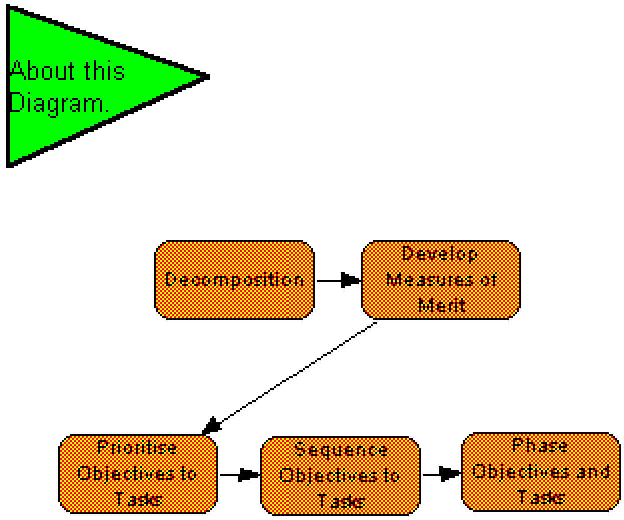
3. About Joint Air Operations Planning Process

This represents the phases normally in the joint air operations planning process. While presented in a sequential order, the phases are not all required to be completed in order. Work on the various phases may be concurrent or sequential, and will be iterated throughout the conflict. However, at some point, the phases must be integrated and the products of each phase must be checked and verified for coherence (Joint Pub 3-56.1, page III-2; Comments from Checkmate 5-20-96, Comments from Checkmate 1-13-97).
Joint air operations are those air operations performed with air capabilities/forces made available by components in support of the JFC's operation or campaign objectives, or in support of other components of the joint force. Joint air operations do not include those air operations that a component conducts in direct support of itself (Joint Pub 3-56.1, page I-1). For example, the Navy may have its own air assets which it directs for strictly Navy purposes.
In the current numbered airforce planning environment, combat plans does not follow this process exactly. 95
Note: The node "Develop Master Air Attack Plan" appears in this diagram and in lower level diagrams. Developing the Master Air Attack Plan is a major step in the Joint Air Operations Planning process, and so Checkmate (Major Mark Alred, Major Steve Cunico, Major Chris Bowman, 1-13-97) thought that it should be included in this diagram. However, to make it clear how the Master Air Attack Plan flows into the Air Tasking Order, a node for "Develop Master Air Attack Plan" is included in "Develop Air Tasking Order" detail diagrams. The nodes in the different diagrams represent the same activity.

3.1. Links to other cards

None.

4. Objective Determination



4.1. Nodes

4.1.1. Prioritize Objectives to Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Prioritizing objectives involves determining which subset of objectives are most urgent. Prioritized objectives show which objectives are most imperative to the success of the mission according to JFC and JFACC intent.

4.1.2. Sequence Objectives to Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Objectives must be analyzed to determine which objectives enable the completion of other objectives. The analysis must be completed to decide which objectives must be completed first. Even though objective A may have a higher priority than objective B, objective B may need to be completed in order for objective A to be completed successfully and optimally. Sequenced objectives show the order in which objectives must be completed.

4.1.3. Phase Objectives and Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**

- **Definition:** Conflicts are typically fought in phases where each phase accomplishes a very high level goal. An example of a phase is, "establish air superiority", or "prepare battlefield". The prioritized and sequenced objectives are placed in the appropriate phase. Phasing objectives and tasks adds a temporal aspect to the plan.

4.1.4. About this Diagram.

- **type:** About
- **Linked to:** *About Objective Determination*

4.1.5. Decomposition

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Decomposition is a process of combining, elaborating and refining the JFC's mission statement, intent and objectives with the JFACC's mission statement and intent. Once a clear vision for what the effort should accomplish has been established, the planners elaborate and refine the details until they have developed a linked set of objectives to tasks which reflects the intent of the JFC and the JFACC but also provides enough detail to actually conduct the battles required.

4.1.6. Develop Measures of Merit

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman; See IFD4 work conducted by Andre Valente, ISI
- **Aliases:** MOM
- **Definition:** Once objectives have been determined, the planners attach measures of merit to each objective and task in the entire objectives to task hierarchy. Measures of merit state when an objective should be considered accomplished. The best measures of merit are quantitative in nature, but often it is difficult to assign a numeric measure to an objective.

4.2. Links to other cards

- *About Objective Determination*

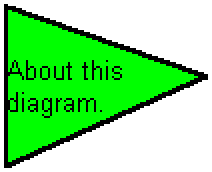
5. About Objective Determination

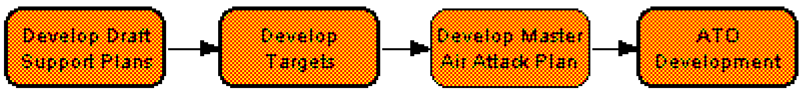
The JFACC Guidance is formalized in the prioritized, sequenced and phased objectives to tasks developed by the air operations center and approved by the JFACC. The process of prioritizing, sequencing and phasing objectives forces the JFACC staff to transition the CinC's and JFACC's intent into a form that is one step closer to being executable.

5.1. Links to other cards

None.

6. ATO Development





6.1. Nodes

6.1.1. About this diagram.

- **type:** About
- **Linked to:** *About ATO Development*

6.1.2. Develop Master Air Attack Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:** MAAP
- **Definition:** This activity is the fist step in the actual mission planning process. The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions throughout the sortie period.

6.1.3. Develop Draft Support Plans

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Developing draft support plans at this point in the planning process involves assigning support assets at a capability level. Plans for support assets enable the force application aspect of the plan to execute successfully. Typically, the plans will be taken from plans for previous days during the conflict and modified slightly. These plans will be fine tuned and assets assigned after the master air attack plan is developed.
  The planners estimate the support plans at this point of the planning process so that they have a gross level understanding of what support assets they have and what their configuration will be. This enables the planners to develop realistic plans.

- **Linked to:** *Develop Draft Support Plans*

6.1.4. Develop Targets

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Developing targets is the process of assigning targets to the prioritized, phased and sequenced objectives . The targets must satisfy the measures of merit for the tasks and objectives as well as help to meet the objectives of the other components that the air force is supporting.
- **Linked to:** *Develop Targets*

6.1.5. ATO Development

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3056.1 page x, III-6
- **Aliases:**
- **Definition:** ATO development details how joint air operation will support the JFC's operation or campaign plan. During this phase, planners integrate the efforts of joint capabilities/forces, prioritize objectives and targets while accounting for current and potential threats, and conduct target development/system analysis. They also phase joint air operations with the JFC's operation or campaign plan, indicating what capabilities/forces will be required to achieve joint air operation objectives. Finally, during this phase, planners will complete a sustainability assessment and delineate the specific procedures for allocating, tasking, and exercising C2 of available air capabilities/forces.
- **Linked to:** *ATO Construction*

6.2. Links to other cards

- *About ATO Development*
- *Develop Draft Support Plans*
- *Develop Targets*
- *ATO Construction*

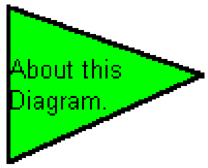
7. About ATO Development

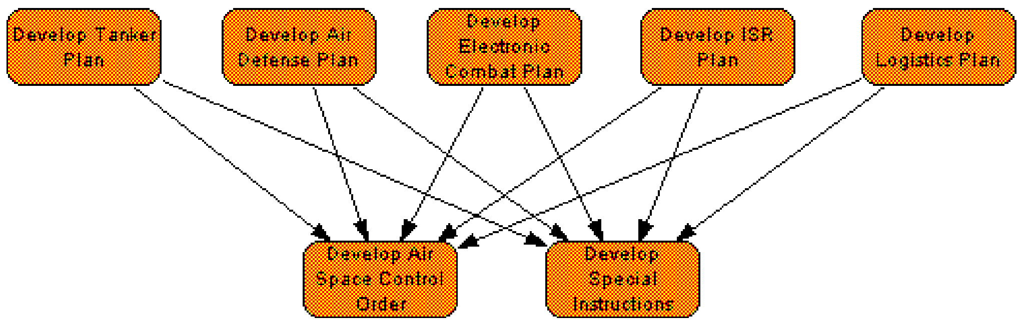
This diagram describes the process of developing the Air Tasking Order (ATO). 72-48 hours before execution of the ATO the JFACC guidance will be developed. 48- to 36 hours before the execution of the ATO the JIPTL will be developed. 36- 24 hours before the execution of the ATO the MAAP will be developed. 24 to 12 hours before the execution of the ATO mission details will be developed. The last 12 hours before the ATO is released the actual ATO produced. Several ATO development efforts for different days of the war will be going on simultaneously. (Technical Report DRIY-TR-1994-001, HQ ACC/DRIY, TBM Architecture Project, 25 January 1994; Theater Battle Management Command, Control, Communications, Computer and Intelligence Architect; Air Operations Center; 6-16-94; Comments from Major Jack Allison and Major Mark Alred of Checkmate, 5-20-96; Comments from Major Mark Alred and Major Steve Cunico, 10-29-96)
Note: The node "Develop Master Air Attack Plan" appears in this diagram as well as the diagram "Joint Air Operations Planning Process". It was decided to keep the node in both diagrams. The node belongs in the higher level diagram because developing the Master Air Attack Plan is a major step in the process. But, it belongs in this diagram to show how it contributes to the ATO development. The node in the two different diagrams represents the same activities. (Checkmate session 1-13-97, Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

7.1. Links to other cards

None.

8. Develop Draft Support Plans





8.1. Nodes

8.1.1. Develop Tanker Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 TBM C4I, AOC page 10,3
- **Aliases:**
- **Definition:** As the refueling requests are finalized, the tanker planning cell must develop the flow of refueling missions (both receivers and tankers) throughout the ATO period. The Duty Officer must schedule flights into the refueling tracks based on mission requirements, plan the offload amount and time, allow for spacing after each refueling (45 minutes between each mission), and schedule tanker sequencing to cover the missions.

8.1.2. Develop Air Defense Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:**
- **Definition:** This activity determines the required defensive arrangements as related to the air assets. This activity determines the location and number of aircraft on alert and on Combat Air Patrol. Once assets to satisfy the defensive requirements have been identified, the remainder of the mission planning can commence.

8.1.3. Develop Air Space Control Order

- **type:** Activity

- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 7
- **Aliases:** ACO
- **Definition:** The Airspace Control Order establishes procedures for the airspace control system in the theater of operations. The ACO must be tied to the area air defense plan and coordinated with the fire support plan. The ACO considers procedures and interfaces with host nation air traffic systems necessary to effectively support air logistics, augmenting forces, and JTF Commander's objectives.
  Based on airspace control requirements and the alternatives developed to satisfy those requirements, airspace management planners coordinate initial plans and changes with the required agencies and planners.
  To deconflict airspace, the planners must coordinate with the host nation, inter theater assets, missions in planning and civil aviation authorities.
  The ACO is one of the last items completed because it depends heavily on planned missions.

8.1.4. Develop Special Instructions

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8
- **Aliases:** SPINS
- **Definition:** Information that does not easily fit into the formatted portion of the ATO, yet necessary for the complete understanding of the missions to be flown, is included in a free text portion of the ATO called the Special Instructions. This method is used to provide units with a wide range of information from non-coordination issues to communications to tanker missions, to changes in ROE. The instructions help to avoid problems.

8.1.5. About this Diagram.

- **type:** About
- **Linked to:** *About Develop Draft Support Plans*

8.1.6. Develop Electronic Combat Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994, page 129; TBM C41, AOC page 10
- **Aliases:** EC Electronic Warfare (EW)
- **Definition:** Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy is considered electronic combat.
  This activity plans, coordinates and tasks all EC missions.
  Many of the allied forces that participate in theater operations will not have organic electronic combat capabilities and therefore rely on US provided support. In the interest of effective integration of all employed forces, the full range of EC support is provided.

8.1.7. Develop ISR Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** Intelligence, Surveillance and Reconnaissance
- **Definition:** The ISR plan describes how INTEL assets will be assigned. Currently, an ISR plan is not developed.

8.1.8. Develop Logistics Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** LOG
- **Definition:**

8.2. Links to other cards

- *About Develop Draft Support Plans*

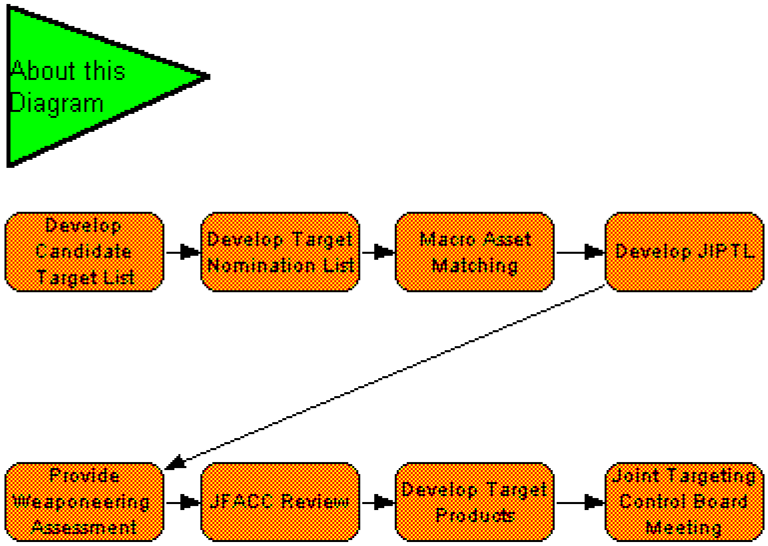
9. About Develop Draft Support Plans

Developing the draft support plans involves analyzing the capabilities required to support a force application mission. Typically, the plans from the previous planning cycle are used with minor adaptations. Once the support plans are completed, the plans are used to construct the airspace control order and the special instructions. Airspace coordination issues are put into the airspace control order and all other non-coordination issues are put into the special instructions. Pilots use the
airspace control order, the special instructions and the air tasking order to plan their missions. (Checkmate session 1-13-97, Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

9.1. Links to other cards

None.

10. Develop Targets



10.1. Nodes

10.1.1. Develop Candidate Target List

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page III-7; IV-2 - IV-4; IV-7; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** CTL
- **Definition:** The candidate target list is the targets that the air strategy cell wants to hit during the next ATO. The targets are not necessarily air targets only, they are targets that may be hit by any component but are required to be hit for the JFACC to accomplish his objectives.

10.1.2. Macro Asset Matching

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 10-19-96 Major Mark Alred Major Steve Cunico; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** This is a process of determining if there are enough assets in theater to hit the targets that are going into the JIPTL. This is a feasibility check to make sure the ATO is not going to be too ambitious.

10.1.3. Develop JIPTL

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture

Project 25 January 1994; TBM C4I, AOC page 10; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman

- **Aliases:** Joint Integrated Prioritized Target List
- **Definition:** The process involves prioritizing and compromising to satisfy individual service target requirements within the JFC guidance provided.
Once the recommended JIPTL is developed, a meeting is held (sometimes called the JGAT meeting) where all of the air targets involved in the joint effort are prioritized. Combat plans and component liaisons attend the meeting.

10.1.4. Provide Weaponeering Assessment

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23; March 1994, page 412; Joint Pub 3-56.1 page IV-4; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Weaponeering is the process of determining the quantity of a specific type of lethal or nonlethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapon effect, munitions delivery accuracy, damage criteria, probability of kill, and weapon reliability. (DMPI analysis)
Weaponeering does not officially happen at this point because the JFACC has not yet approved the results of the JGAT meeting. But, because of time constraints, work on weaponeering begins prior to JFACC approval, and any changes made by the JFACC are accommodated at that point. Weaponeering begins as soon as it possibly can.

10.1.5. Develop Target Nomination List

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** TNL
- **Definition:** This activity considers the component nominated target lists. If sufficient airpower is available, all targets will be serviced; if limited airpower, component target lists may have to be prioritized against each other.

10.1.6. JFACC Review

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** The JFACC reviews the recommended JIPTL. Before the JTCB meeting can occur, the JFACC approval is required.

10.1.7. Develop Target Products

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman

- **Aliases:**
- **Definition:** The target products are a briefing on the targets selected for the next ATO. The briefing is presented to the Joint Targeting Control Board (JTCB). Preparing the briefing does not need to wait on JFACC review.

10.1.8. Joint Targeting Control Board Meeting

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:** JTCB
- **Definition:** One of the items addressed at the Joint Targeting Control Board (JTCB) is the targets being addressed in the next ATO. The JTCB must approve the JIPTL prior to ATO development.

10.1.9. About this Diagram

- **type:** About
- **Linked to:** *About Develop Targets*

10.2. Links to other cards

- *About Develop Targets*

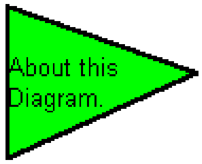
11. About Develop Targets

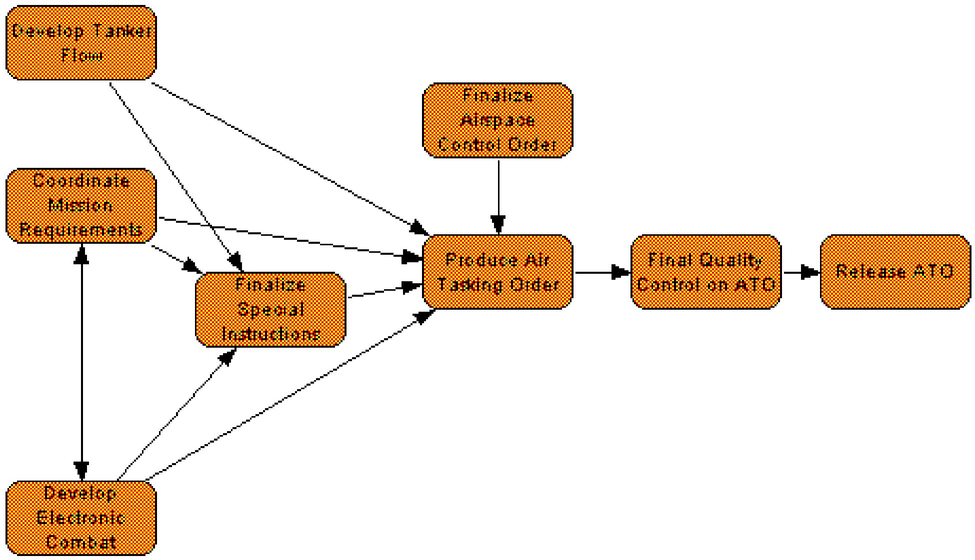
Developing targets is a process of refining tasks to specific targets that satisfy the measures of merit (MOM) associated with each task. The JFACC must compromise with the other components to arrive at the final targets for the next ATO. The compromise takes place in the JGAT meeting and the Joint Targeting Control Board meeting. (Checkmate session 1-13-97, Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

11.1. Links to other cards

None.

12. ATO Construction





12.1. Nodes

12.1.1. Finalize Airspace Control Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 7; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** ACO
- **Definition:** At this point, the ACO is modified and revised based on changes made since the draft support plans were put together.
Based on airspace control requirements and the alternatives developed to satisfy those requirements, airspace management planners coordinate initial plans and changes with the required agencies and planners.
To deconflict airspace, the planners must coordinate with the host nation, inter theater assets, missions in planning and civil aviation authorities.
The ACO is one of the last items completed because it depends heavily on planned missions.

12.1.2. Develop Tanker Flow

- **type:** Activity

- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 TBM C4I, AOC page 10,3; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** At this point, tanker assets are assigned and added to the draft tanker plan. As the refueling requests are finalized, the tanker planning cell must develop the flow of refueling missions (both receivers and tankers) throughout the ATO period. The Duty Officer must schedule flights into the refueling tracks based on mission requirements, plan the offload amount and time, allow for spacing after each refueling (45 minutes between each mission), and schedule tanker sequencing to cover the missions.

12.1.3. Coordinate Mission Requirements

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8
- **Aliases:**
- **Definition:** The fighter duty officer planners must review the target groupings as they are developed and, based on target characteristics and the target and route threats, refine the support missions (tanker, EW,ISR, LOG, Counter Air, etc.) that will be needed for each group of targets. Any additional support requirements will be used by the support asset planners as well as being used in the development of the final time on target (TOT) flow.

12.1.4. Develop Electronic Combat Planning

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994, page 129; TBM C41, AOC page 10; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** EC Electronic Warfare (EW)
- **Definition:** At this point, assets are assigned to the EC plan.
  Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy is considered electronic combat. This activity plans, coordinates and tasks all EC missions.
  Many of the allied forces that participate in theater operations will not have organic electronic combat capabilities and therefore rely on US provided support. In the interest of effective integration of all employed forces, the full range of EC support is provided.

12.1.5. Finalize Special Instructions

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** SPINS
- **Definition:** At this point, the SPINS are modified and revised based on changes and additions made since the draft support plans were put together.

Information that does not easily fit into the formatted portion of the ATO, yet necessary for the complete understanding of the missions to be flown, is included in a free text portion of the ATO called the Special Instructions. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in ROE.

12.1.6. Produce Air Tasking Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4;IV-9; IV-10; TBM C4I, AOC page 10
- **Aliases:** ATO
- **Definition:** Producing the ATO is an iterative process until the planners verify that all missions are reflected properly in the ATO.

12.1.7. Final Quality Control on ATO

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4; TBM C41, AOC page 7
- **Aliases:**
- **Definition:** This activity represents the final check of the machine produced ATO. Various spot checks are made on the paper copy of the ATO and various "sorts" of the ATO data are made and compared with expected results.

12.1.8. Release ATO

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4; TBM C4I, AOC page 7
- **Aliases:**
- **Definition:** This represents the development of the various summaries of the planned missions that are contained in the ATO. The summaries are used to prepare briefings for commanders on the ATO that has been developed.

12.1.9. About this Diagram.

- **type:** About
- **Linked to:** *About ATO Construction*

12.2. Links to other cards

- *About ATO Construction*

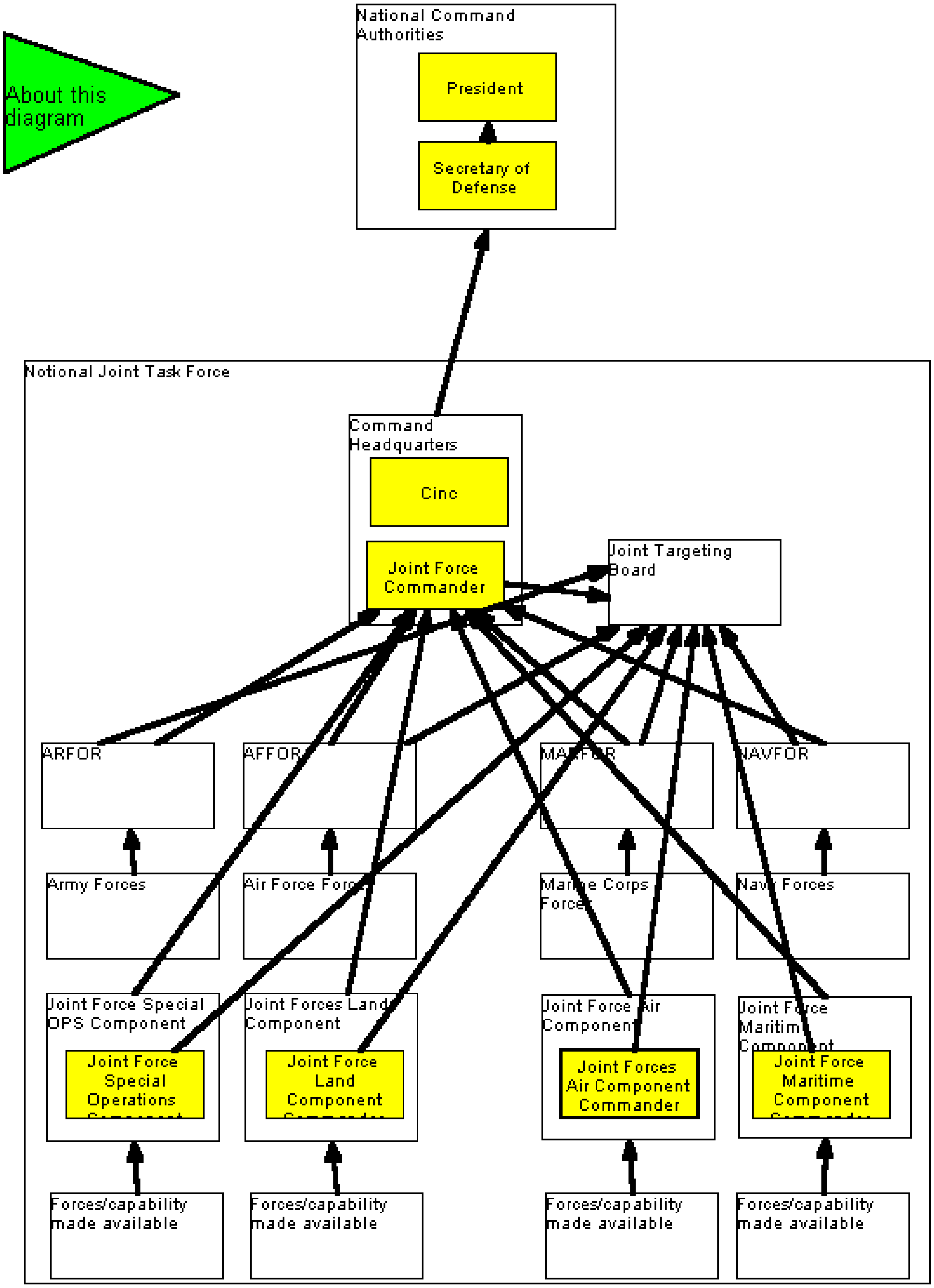
13. About ATO Construction

ATO development begins with revising, further developing and choosing assets to perform capabilities in the support plans. Then, the special instructions and airspace control order are finalized based on changes to the draft support plans. Then, actual ATO production can begin. The ATO is checked over thoroughly and reviewed by the JFACC before it is released to combat operations for execution. (Checkmate session 1-13-97, Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

13.1. Links to other cards

None.

14. Joint Structure



14.1. Nodes

14.1.1. National Command Authorities

- **type:** Department
- **Documentation:** The President and the Secretary of Defense or their duly deputized alternates or successors.
- **Reference:** Joint Pub 3-0 page II-5; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 253
- **Aliases:** NCA
- **Definition:**

14.1.2. President

- **type:** Agent
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-5
- **Aliases:**
- **Definition:**

14.1.3. Secretary of Defense

- **type:** Agent
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-5
- **Aliases:**
- **Definition:**

14.1.4. Node

- **type:** Agent
- **Documentation:**
- **Reference:**
- **Aliases:**
- **Definition:**

14.1.5. Notional Joint Task Force

- **type:** Department
- **Documentation:** This is a POSSIBLE Joint Task Force Structure. A Joint Task Force contains Service components even when operations are conducted through functional components. All service and functional components are depicted, any mix of them can constitute a joint force. There may also be a Coast Guard component in a joint force.
- **Reference:** Joint Pub 3-0 page II-16; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 207
- **Aliases:** JTF
- **Definition:** A Joint Task Force is composed of assigned or attached elements of the Army, the Navy or the Marine Corps, and the Air Force, or two or more of these Services, which is constituted and so designated by the Secretary of Defense or by the commander of a unified command, a specified command, or an existing joint task force.

14.1.6. About this diagram

- **type:** About
- **Linked to:** *About Joint Structure*

14.1.7. ARFOR

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:** ARMY Component
- **Definition:**

14.1.8. AFFOR

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:** Air Force Component
- **Definition:**

14.1.9 . MARFOR

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:** Marine Corps Component
- **Definition:**

14.1.10. NAVFOR

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:** Navy Component
- **Definition:**

14.1.11. Army Forces

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.12. Air Force Forces

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.13. Marine Corps Forces

- **type:** Department

- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.14. Navy Forces

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.15. Joint Force Special OPS Component

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.16. Joint Forces Land Component

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.17. Joint Force Air Component

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.18. Joint Force Maritime Component

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**
- **Definition:**

14.1.19. Forces/capability made available

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16
- **Aliases:**

- **Definition:**

14.1.20. CinC

- **type:** Agent
- **Documentation:**
- **Reference:**
- **Aliases:**
- **Definition:**

14.1.21. Joint Targeting Board

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page IV-2; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 207
- **Aliases:** JTCB
- **Definition:** This group is formed by the JFC to accomplish broad targeting oversight functions that may include but are not limited to coordinating targeting information, providing targeting guidance and priorities, and preparing and/or refining joint target lists. The board is normally comprised of representatives from the joint force staff, all component commanders, and if required component subordinate units. The deputy CINC/JFC will chair the JTCB.

14.1.22. Command Headquarters

- **type:** Department
- **Documentation:**
- **Reference:** Perspectives on Theater Air Campaign Planning David E. Thaler, David A. Shlapak; RAND page 8
- **Aliases:**
- **Definition:**

14.1.23. Joint Force Commander

- **type:** Agent
- **Documentation:**
- **Reference:** Joint Pub 3-0 page II-16; GL-7; for more information see Joint Pub 1-02
- **Aliases:** JFC Commander of Joint Task Force CJTF
- **Definition:** The Joint Force Commander applies to a combatant commander, sub-unified commander, or joint task force commander authorized to exercises combatant command (command authority) or operational control over a joint force.

14.1.24. Joint Forces Air Component Commander

- **type:** Agent
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page vii; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 201-202
- **Aliases:** JFACC
- **Definition:** The joint force air component commander derives authority from the joint force commander who has the authority to exercise operation control, assign missions,

direct coordination among subordinate commanders, redirect and organize forces to ensure unity of effort in the accomplishment of the overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to , planning, coordination, allocation, and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas.
The JFACC is usually also the ACA and the AADC. If the JFACC does not have those responsibilities, then special attention must be paid to coordination of the three roles. There may also be a Deputy JFACC assigned.
- **Linked to:** *Joint Air Operations Center Structure*

14.1.25. Joint Force Land Component Commander

- **type:** Agent
- **Documentation:**
- **Reference:** Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 202
- **Aliases:** JFLCC
- **Definition:** The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of land forces, planning and coordinating land operations, or accomplishing such operational missions as may be assigned. The joint force land component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The joint force land component commander will normally be the commander with the preponderance of land forces and the requisite command and control capabilities.

14.1.26. Joint Force Maritime Component Commander

- **type:** Agent
- **Documentation:**
- **Reference:** Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 202
- **Aliases:** JFMCC
- **Definition:** The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of maritime forces and assets, planning and coordinating maritime operations, or accomplishing such operational missions as may be assigned. The joint force maritime component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The joint force maritime component commander will normally be the commander with the preponderance of maritime forces and the requisite command and control capabilities.

14.1.27. Joint Force Special Operations Component Commander

- **type:** Agent
- **Documentation:**
- **Reference:** Department of Defense Dictionary of Military and Associated Terms, 23

March 1994 page 202-203

- **Aliases:** JFSOCC
- **Definition:** The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of special operations forces and assets, planning and coordinating special operations, or accomplishing such operational missions as may be assigned. The joint force special operations component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The joint force special operations component commander will normally be the commander with the preponderance of special operations forces and the requisite command and control capabilities.

14.2. Links to other cards

- *About Joint Structure*
- *Joint Air Operations Center Structure*

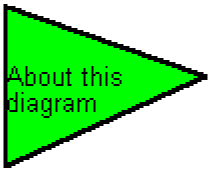
15. About Joint Structure

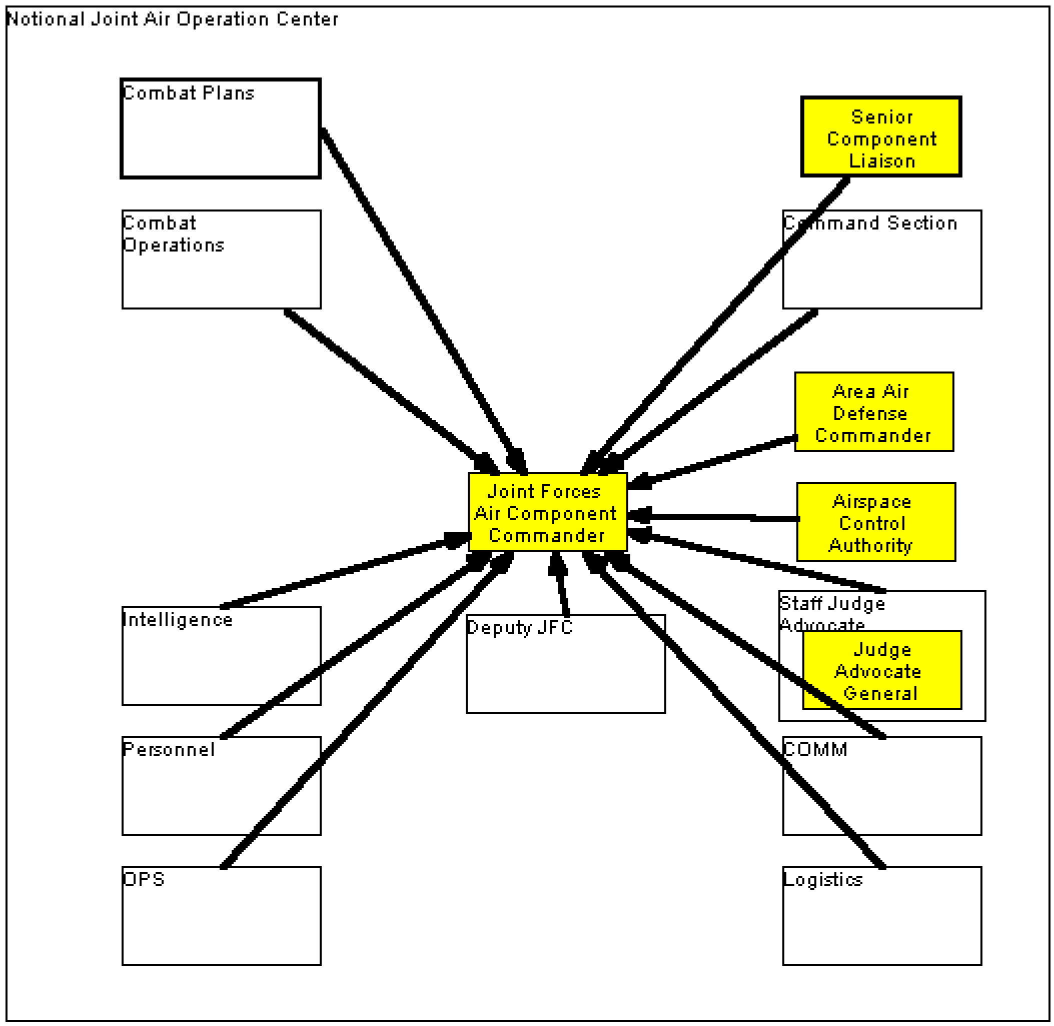
This diagram shows a notional organization chart for a Joint Task Force. The National Command Authority (NCA) exercises authority and control of the Joint Task Force (JTF) through a single chain of command to the command headquarters of the JTF. Reporting to the Joint Force Commander (JFC) is the Joint Targeting Board and each component and service. The Joint Targeting Board, serving as a coordination committee, has representatives from each component participating. All joint forces include
Service components (i.e. MARFOR, ARFOR, NAVFOR, AFFOR). Administrative and logistic support for joint forces are provided through Service components. The JFC may conduct operations through the Service component commanders, or at lower echelons. Service forces may be assigned or attached to subordinate joint forces without the formal creation of a functional component (i.e. Joint Forces Air Component) of the joint force. The JFC defines the authority and responsibilities of functional component commanders based on the concept of operations and may alter their authority and responsibilities during the course of an operation. Most often, joint forces are organized with a combination of Service and functional components with operational responsibilities. Joint forces with Army, Navy, Marine Corps, and Air Force components will still have special operations forces organized as a functional component. (Joint Pub 3-0, pages II-5 - II-16)

15.1. Links to other cards

None.

16. Joint Air Operations Center Structure





16.1. Nodes

16.1.1. Joint Forces Air Component Commander

- **type:** Agent
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page vii; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 201-202

- **Aliases:** JFACC
- **Definition:** The joint force air component commander derives authority from the joint force commander who has the authority to exercise operation control, assign missions, direct coordination among subordinate commanders, redirect and organize forces to ensure unity of effort in the accomplishment of the overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to , planning, coordination, allocation, and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas.
  The JFACC is usually also the ACA and the AADC. If the JFACC does not have those responsibilities, then special attention must be paid to coordination of the three roles. There may also be a Deputy JFACC assigned.

16.1.2. Airspace Control Authority

- **type:** Agent
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page vii; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 19
- **Aliases:** ACA
- **Definition:** The JFACC usually plays this role. If the JFACC and the ACA are different people, then special attention needs to be paid to coordination between the two roles. The ACA is the commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area.

16.1.3. Area Air Defense Commander

- **type:** Agent
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page vii, GL-5
- **Aliases:** AADC
- **Definition:** Within unified command, subordinate unified command, or a joint task force, the commander will assign overall responsibility for air defense to a single commander. Normally, this will be the component commander with the preponderance of air defense capabilities and the command, control, and communications capability to plan and execute integrated air defense operations. Representation from the other components involved will be provided, as appropriate, to the area air defense commander's headquarters.

16.1.4. About this diagram

- **type:** About
- **Linked to:** *About Joint Air Operations Center Structure*

16.1.5. Notional Joint Air Operation Center

- **type:** Department

- **Documentation:** The JFACC's JAOC may differ based on the specific area of responsibility/joint operations area requirements and operations. The two organizations that should be common to all JAOCs are Combat Plans and Combat Operations.
- **Reference:** Joint Pub 3-56.1 page viii,II-6
- **Aliases:** JAOC AOC
- **Definition:** The principal air operations installation from which aircraft and air warning functions of combat air operations are directed, controlled, and executed. It is the senior agency of the Air Force Component Commander from which command and control of air operations are coordinated with other components and Services.

16.1.7. Combat Plans

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page viii
- **Aliases:**
- **Definition:** Combat Plans is responsible for planning future air operations. Combat Plans is a crucial component to all Air Operation Centers.
- **Linked to:** *Combat Plans Structure*

16.1.9. Combat Operations

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page viii
- **Aliases:**
- **Definition:** Combat Operations is responsible for the executions of the daily joint ATO.

This organization is common to all Air Operations Centers.

16.1.11. Intelligence

- **type:** Department
- **Documentation:** The role of intelligence is extremely important and is an integral part of the daily function of Combat Plans and Combat Operations. For this reason, I added a link from Intelligence to combat operations and combat plans.
- **Reference:** Joint Pub 3-56.1 page II-7
- **Aliases:** INTEL
- **Definition:**

16.1.13. Command Section

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-7
- **Aliases:**
- **Definition:** The command section consists of the JFACC's administrative staff.

16.1.15. Personnel

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-7

- **Aliases:**
- **Definition:** Personnel is responsible for staffing of posts. Personnel will know who is stationed where, where there are shortages of personnel and where there is excess of personnel.

16.1.17. OPS

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-7
- **Aliases:**
- **Definition:**

16.1.19. Logistics

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-7
- **Aliases:**
- **Definition:**

16.1.21. COMM

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-7
- **Aliases:**
- **Definition:**

16.1.23. Staff Judge Advocate

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-7
- **Aliases:** SJA
- **Definition:** The Staff Judge Advocate advises on the legal aspects of war.

16.1.25. Senior Component Liaison

- **type:** Agent
- **Documentation:** There are several senior component liaisons depending on the type of mission. The specific liaison types are linked to this node.
  The liaisons do take their daily tasking from the JFACC but the components from which they come have command of them.
  Senior component liaisons serve as conduits for direct coordination between the JFACC and their respective component commander. Senior liaisons possess the credibility and authority to represent their component commander on time sensitive and critical issues. They must be equipped and authorized to communicate directly with their respective component commander. The senior liaisons have the responsibility of presenting component perspectives and considerations regarding planning and executing joint air operations.
- **Reference:** Joint Pub 3-56.1 page II-7; Department of Defense Dictionary of Military

and Associated Terms, 23 March 1994 page 217
- **Aliases:**
- **Definition:** A Liaison is a contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action.
- **Linked to:** *Senior Component Liaisons Structure*

16.1.26. Judge Advocate General

- **type:** Agent
- **Documentation:**
- **Reference:** Technical Report DRIY-R-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 Summary Diagram
- **Aliases:** JAG
- **Definition:**

16.1.27. Deputy JFC

- **type:** Department
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** Deputy Joint Forces Air Component Commander
- **Definition:** Assistant to the JFACC.

16.2. Links to other cards

- *About Joint Air Operations Center Structure*
- *Combat Plans Structure*
- *Senior Component Liaisons Structure*

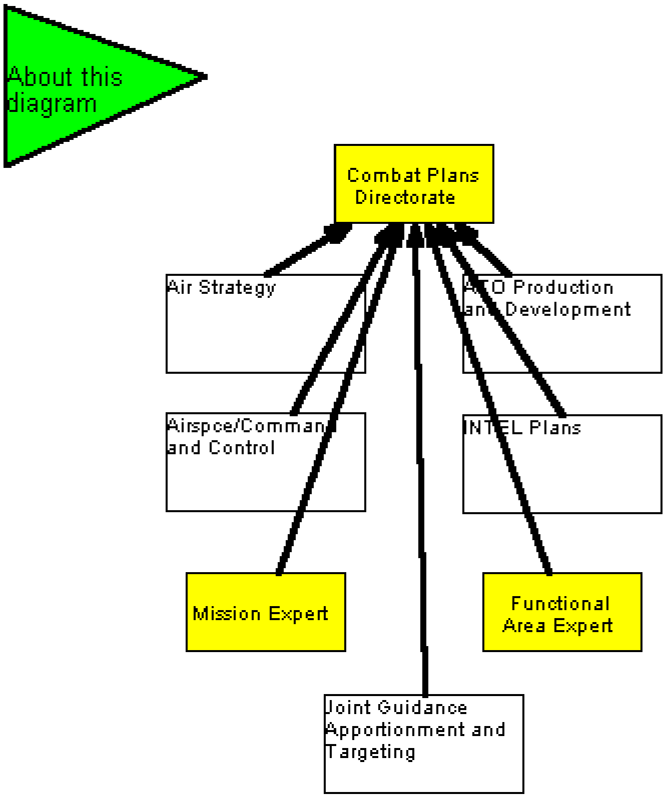
17. About Joint Air Operations Center Structure

This organization chart displays a notional joint air operation center (JAOC). The organization for a JAOC is flexible to meet the needs of the current situation. In some situations, a JFACC is not even required and so the need for this organization would not exist.
The JFACC's JAOC is structured to operate as a fully integrated facility and staffed to fulfill all of the JFACC's responsibilities. The Command Section supports the administrative duties of the JFACC. The two organizations or functions which should be common to all JAOCs are Combat Plans (future joint air operations) and Combat Operations (execution of the daily joint ATO). The role of intelligence is also extremely important and is an integral part of the daily function of Combat Plans and
Combat Operations.
Senior Component liaisons serve as conduits for direct coordination between the JFACC and their respective component commanders.
Functional area and mission experts provide the critical and unique expertise in support, plans, and execution functions, as appropriate for the employment scenario. The functional area and mission experts come from other areas of the JFACC staff such as COMM, logistics, OPS or intelligence, or the experts could come from another component.
The JFACC usually assumes the roles of the Area Air Defense Commander and the Airspace Control Authority. But it the JFACC does not take on these roles, the people taking these roles have to be tightly coordinated with the JFACC. (Joint Pub 3056.1, page vii, viii)

17.1. Links to other cards

None.

18. Combat Plans Structure



18.1. Nodes

18.1.1. About this diagram

- **type:** About
- **Linked to:** *About Combat Plans Structure*

18.1.2. Air Strategy

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6, C-1
- **Aliases:**
- **Definition:** Air Strategy planners develop and plan the strategic direction for joint air operations. Strategy planners work with the JFACC/JFC staff to develop the overarching strategy and guidance for joint air operations which is developed in concert with the JFC's operation. Air strategy involves continuous planning process that may revise air strategy based on intelligence inputs, combat assessment and analysis of centers of gravity.

18.1.4. Airspace/Command and Control

- **type:** Department
- **Documentation:**

- **Reference:** Joint Pub 3-56.1 page II-6, C-1
- **Aliases:**
- **Definition:** This organization develops, coordinates, and publishes plans, concepts of operations, and details procedures for the combined interoperability and integration of command and control systems. This includes airspace management, area air defense, air support, and communication support.

18.1.5. ATO Production and Development

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6; C-2
- **Aliases:**
- **Definition:** This branch is staffed by system and weapons experts who may be tasked or employed in joint air operations and is responsible to produce a timely and executable joint ATO.

18.1.6. INTEL Plans

- **type:** Department
- **Documentation:** INTEL Plans will be composed of people from the intelligence group within the AOC.
- **Reference:** Joint Pub 3-56.1 page II-6; C-3
- **Aliases:**
- **Definition:** In conjunction with the combat plans. Plans Intelligence supports the planning and development of the ATO. Normally collection management intelligence production, and target intelligence are three functions provided to the combat plans by plans intelligence cell.

18.1.7. Combat Plans Directorate

- **type:** Agent
- **Documentation:**
- **Reference:** Theater Battle Management C3I AOC Depiction, V.1 page 15
- **Aliases:**
- **Definition:** The Combat Plans Directorate of the Air Operations Center is responsible for planning all aspects of the air operations in the theater. This includes the establishment and refinement of the command and control aspects of air operations, the planning of the resources required to support air operations, and the planning of the air missions themselves. All of this planning is to support the aims and objectives identified by the Joint Task Force Commander and national authorities. The primary product of Combat Plans is the Air Tasking Order.

18.1.9. ATO Production and Development

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6; C-2
- **Aliases:**
- **Definition:** This branch is staffed by system and weapons experts who may be tasked or employed in joint air operations and is responsible to produce a timely and executable joint ATO.

18.1.10. Airspace/Command and Control

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6, C-1
- **Aliases:**
- **Definition:** This organization develops, coordinates, and publishes plans, concepts of operations, and details procedures for the combined interoperability and integration of command and control systems. This includes airspace management, area air defense, air support, and communication support.

18.1.11. Mission Expert

- **type:** Agent
- **Documentation:** The mission experts will come from other areas of the air operations center (logistics, ops, etc.) and potentially from other components. They are placed in combat plans on an as-needed basis and take their daily tasking from the Combat Plans Directorate. They will still be under the command of their original post.
- **Reference:** Joint Pub 3-56.1 page II-8
- **Aliases:**
- **Definition:** Mission experts (such as air-to-air, air-to-ground, reconnaissance, air refueling and others as appropriate) provide the technical warfighting expertise required to plan and employ capabilities/forces made available by the components.

18.1.12. Functional Area Expert

- **type:** Agent
- **Documentation:** The functional area experts will come from other areas of the air operations center (logistics, ops, etc.) and potentially from other components. They are placed in combat plans on an as-needed basis and take their daily tasking from the Combat Plans Directorate. They will still be under the command of their original post.
- **Reference:** Joint Pub 3-56.1 page II-8, page III-2
- **Aliases:**
- **Definition:** Functional area experts (such as intelligence, logistics, airspace, plans and communications) provide the critical and unique expertise in support, plans, and execution functions, as appropriate for the employment scenario.

18.1.13. Joint Guidance Apportionment and Targeting

- **type:** Department
- **Documentation:**
- **Reference:** Major Mark Alred, Checkmate Major Jack Allison, Checkmate Session 5-20-96
- **Aliases:** JGAT
- **Definition:** The JGAT is usually composed of Senior Component Liaisons and representatives from air strategy. An air strategy representative will probably chair the board. The JGAT determines the candidate targets and their prioritization for the recommended JIPTL.

18.2. Links to other cards

- *About Combat Plans Structure*

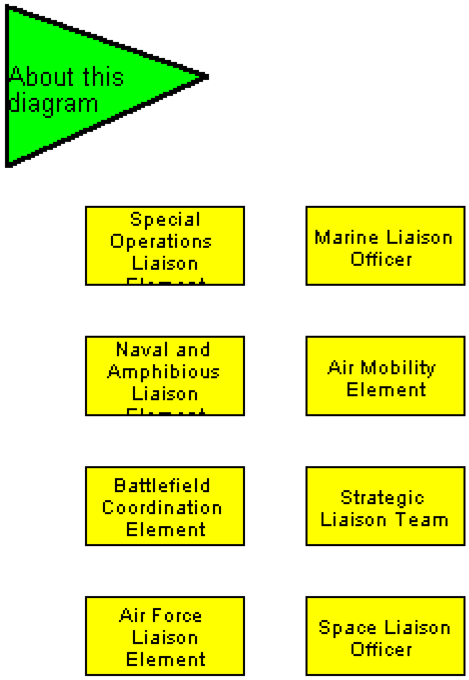
19. About Combat Plans Structure

This diagram shows the structure of Combat Plans. Instead of indicating separate groups which do separate tasks, the groups within Combat Plans indicate areas from which to pull people to do required tasks. Joint air operations planning is a collaborative effort; when the barriers between the groups are eliminated then the process goes more smoothly. (Comments from Major Jack Allison and Major Mark Alred, 5-20-96)

19.1. Links to other cards

None.

20. Senior Component Liaisons Structure



20.1. Nodes

20.1.1. Special Operations Liaison Element

- **type:** Agent
- **Documentation:** The JFSOCC provides a SOLE to the JFACC/JFC staff or appropriate Service component air command and control facility to coordinate and synchronize SOF air and surface operations with joint air operations. A major SOLE responsibility is shared asset coordination deconfliction. The SOLE must consider airborne fire support and reconnaissance, command and control platforms, air refueling, as well as deconfliction of operations. The SOLE chief works directly for the JFSOCC and places liaison officers throughout the JAOC staff.
- **Reference:** Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 217; Joint Pub 3-56.1 page II-7,
- **Aliases:** SOLE
- **Definition:** A Liaison is a contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action.

20.1.2. Marine Liaison Officer

- **type:** Agent
- **Documentation:**
- **Reference:** Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 217
- **Aliases:**
- **Definition:** A Liaison is a contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action.

20.1.3. Naval and Amphibious Liaison Element

- **type:** Agent
- **Documentation:** The NALE is responsive to the JAOC on matters pertaining to Navy and Marine amphibious operations. The NALE processes Navy force and Marine landing force requests for air support and monitors and interprets the maritime battle situation for the JAOC. The NALE provides the necessary interface for the exchange of current operational and intelligence data between components and the JAOC. The NALE also coordinates maritime requirements for air defense, long-range interdiction, and long-range requirements and monitors Navy and Marine airspace and air traffic control requirements and changes. The NALE provides feedback to the JAOC and components on current and future joint air operations concerning integration of force requirements.
- **Reference:** Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 217; Joint Pub 3-56.1 page B-2
- **Aliases:** NALE
- **Definition:** A Liaison is a contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action.

20.1.4. Air Mobility Element

- **type:** Agent
- **Documentation:** The AME is responsible for the detailed planning and coordinating for all strategic airlift operations in theater. The AME is part of the theater airlift system and should be collocated within the JAOC. Should it become necessary to temporarily assign strategic airlift assets to fulfill the theater airlift mission requirements, then the AME will be the focal point and tasking authority for these missions. JFCs should rely on their JFACC to plan and control theater airlift operations. If a JFACC is not designated, the Air Force Component Commander should plan and continue this diagram

- **type:** About
- **Linked to:** *About Senior Component Liaisons Structure*

20.2. Links to other cards

- *About Senior Component Liaisons Structure*

21. About Senior Component Liaisons Structure

Instead of indicating an organization chart, this diagram simply lists examples of senior component liaisons. This is not a complete list but a sampling. (Joint Pub 3-56., page B-2)

21.1. Links to other cards

None.

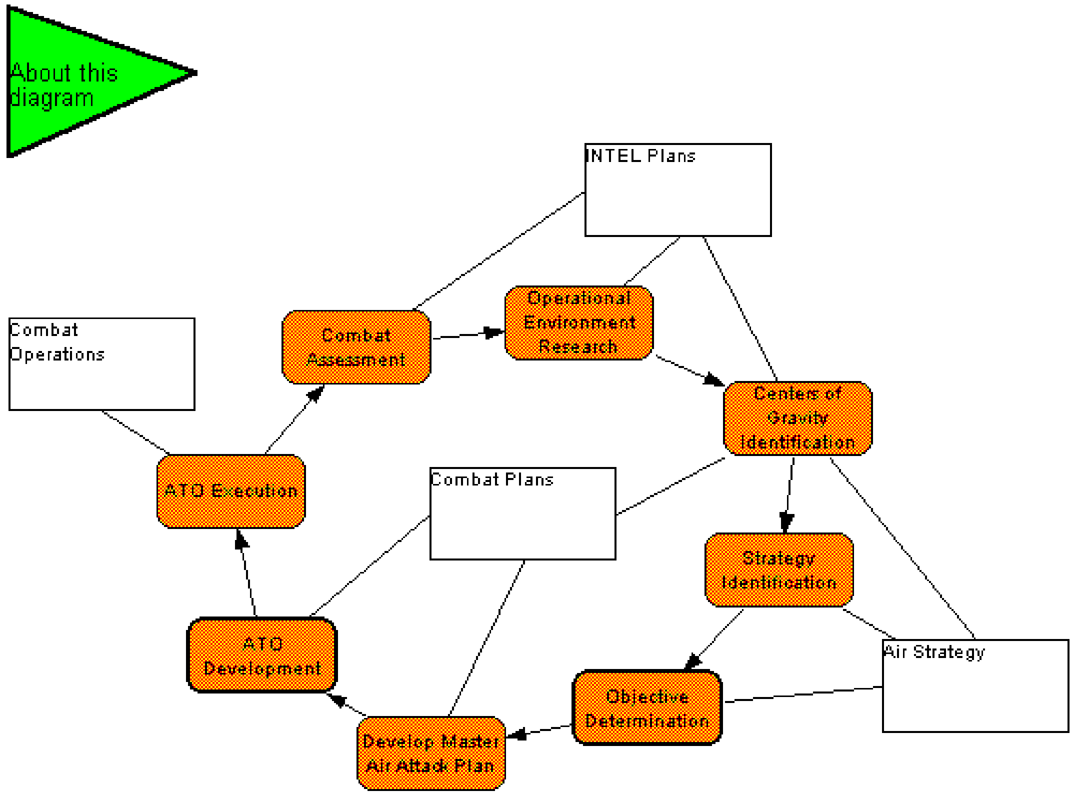
23. About Senior Component Liaisons Structure

Instead of indicating an organization chart, this diagram simply lists examples of senior component liaisons. This is not a complete list but a sampling. (Joint Pub 3-56., page B-2)

23.1. Links to other cards

None.

26. Joint Air Operations Planning Participation



26.1. Nodes

26.1.1. About this diagram

- **type:** About
- **Linked to:** *About Joint Air Operations Planning Participation*

26.1.2. Objective Determination

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page ix, III-3, 4
- **Aliases:**
- **Definition:** Objectives determination defines and quantifies objectives that will contribute to the accomplishment of the JFC's operation or campaign objectives.
- **Linked to:** *Objectives Determination Participation*

26.1.3. Strategy Identification

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page x, III-4
- **Aliases:**
- **Definition:** The joint air strategy states how the JFACC plans to exploit joint air

capabilities/forces to support the JFC's objectives.

26.1.4. Operational Environment Research

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page ix, III-3, III-4
- **Aliases:**
- **Definition:** This phase is focused on gaining information about friendly and adversary capabilities and intentions, doctrine, and the environment in which the operations will take place. The goal of this phase is to gain an understanding of the theater of operations, the adversary, and friendly forces available to accomplish the JFC's objectives.

26.1.5. Centers of Gravity Identification

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page x, III-5
- **Aliases:** COG
- **Definition:** Centers of Gravity identification is the identification of those adversary COGs which should be attacked to satisfy the JFC's strategic, operational, and tactical objectives and friendly COGs that should be defended.

26.1.6. ATO Development

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3056.1 page x, III-6
- **Aliases:**
- **Definition:** ATO development details how joint air operation will support the JFC's operation or campaign plan. During this phase, planners integrate the efforts of joint capabilities/forces, prioritize objectives and targets while accounting for current and potential threats, and conduct target development/system analysis. They also phase joint air operations with the JFC's operation or campaign plan, indicating what capabilities/forces will be required to achieve joint air operation objectives. Finally, during this phase, planners will complete a sustainability assessment and delineate the specific procedures for allocating, tasking, and exercising C2 of available air capabilities/forces.
- **Linked to:** *ATO Development Participation*

26.1.7. Develop Master Air Attack Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:** MAAP
- **Definition:** This activity is the fist step in the actual mission planning process. The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions

throughout the sortie period.

26.1.8. ATO Execution

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** ATO execution is the process of implementing the instructions in the ATO with real assets and real munitions.

26.1.9. Combat Assessment

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman; Checkmate session 9-96 Major Mark Alred Major Steve Cunico
- **Aliases:**
- **Definition:** Combat assessment is an "assessment of how the air operations plan is being prosecuted." Assessment seeks to understand the effect that the attacker had on the target and to measure this effect against the plan at multiple levels (campaign, force selection, mission integration, execution). After assessing the effects that the battle had, the planner can better understand how upcoming and previous plans should be affected. Combat assessment encompasses force application, LOG, ISR and air defense.

26.1.10. Combat Plans

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page viii
- **Aliases:**
- **Definition:** Combat Plans is responsible for planning future air operations. Combat Plans is a crucial component to all Air Operation Centers.

26.1.12. Air Strategy

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6, C-1
- **Aliases:**
- **Definition:** Air Strategy planners develop and plan the strategic direction for joint air operations. Strategy planners work with the JFACC/JFC staff to develop the overarching strategy and guidance for joint air operations which is developed in concert with the JFC's operation. Air strategy involves continuous planning process that may revise air strategy based on intelligence inputs, combat assessment and analysis of centers of gravity.

26.1.14. INTEL Plans

- **type:** Department
- **Documentation:** INTEL Plans will be composed of people from the intelligence group

within the AOC.
- **Reference:** Joint Pub 3-56.1 page II-6; C-3
- **Aliases:**
- **Definition:** In conjunction with the combat plans. Plans Intelligence supports the planning and development of the ATO. Normally collection management intelligence production, and target intelligence are three functions provided to the combat plans by plans intelligence cell.

26.1.16. Combat Operations

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page viii
- **Aliases:**
- **Definition:** Combat Operations is responsible for the executions of the daily joint ATO. This organization is common to all Air Operations Centers.

26.2. Links to other cards

- *About Joint Air Operations Planning Participation*
- *Objectives Determination Participation*
- *ATO Development Participation*

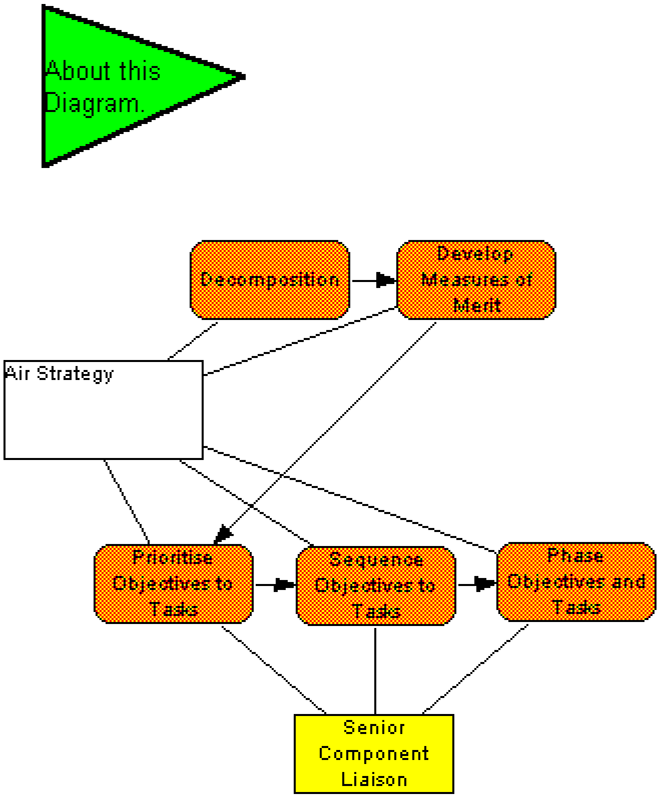
27. About Joint Air Operations Planning Participation

Combat Plans is primarily involved in preparing the plan for near term execution (MAAP, ATO). Air Strategy is primarily involved in working with the JFACC to put the campaign level plans in place. INTEL Plans is involved with many of the analysis tasks such as combat assessment, operational environment research and COG identification. The planners will have daily conversations with the JFACC to be certain they are capturing his mission, intent and objectives as well as the JFC's.
These steps are performed at other levels of echelons, such as the JTF, as well as by other components. Eventually, the results of each process come together to form the campaign plan. (Major Mark Alred and Major Jack Allison of Checkmate, 5-20-96; Checkmate session 1-13-97, Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

27.1. Links to other cards

None.

28. Objectives Determination Participation



28.1. Nodes

28.1.1. Prioritize Objectives to Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Prioritizing objectives involves determining which subset of objectives are most urgent. Prioritized objectives show which objectives are most imperative to the success of the mission according to JFC and JFACC intent.

28.1.2. Sequence Objectives to Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Objectives must be analyzed to determine which objectives enable the completion of other objectives. The analysis must be completed to decide which objectives must be completed first. Even though objective A may have a higher priority than objective B, objective B may need to be completed in order for objective A to be completed successfully and optimally. Sequenced objectives show the order in which objectives must be completed.

28.1.3. Phase Objectives and Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Conflicts are typically fought in phases where each phase accomplishes a very high level goal. An example of a phase is, "establish air superiority", or "prepare battlefield". The prioritized and sequenced objectives are placed in the appropriate phase. Phasing objectives and tasks adds a temporal aspect to the plan.

28.1.4. About this Diagram.

- **type:** About
- **Linked to:** *About Objectives Determination Participation*

28.1.5. Decomposition

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Decomposition is a process of combining, elaborating and refining the JFC's mission statement, intent and objectives with the JFACC's mission statement and intent. Once a clear vision for what the effort should accomplish has been established, the planners elaborate and refine the details until they have developed a linked set of objectives to tasks which reflects the intent of the JFC and the JFACC but also provides enough detail to actually conduct the battles required.

28.1.6. Develop Measures of Merit

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman; See IFD4 work conducted by Andre Valente, ISI
- **Aliases:** MOM
- **Definition:** Once objectives have been determined, the planners attach measures of merit to each objective and task in the entire objectives to task hierarchy. Measures of merit state when an objective should be considered accomplished. The best measures of merit are quantitative in nature, but often it is difficult to assign a numeric measure to an objective.

28.1.7. Senior Component Liaison

- **type:** Agent
- **Documentation:** There are several senior component liaisons depending on the type of mission. The specific liaison types are linked to this node.
  The liaisons do take their daily tasking from the JFACC but the components from which they come have command of them.
  Senior component liaisons serve as conduits for direct coordination between the JFACC and their respective component commander. Senior liaisons possess the credibility and

authority to represent their component commander on time sensitive and critical issues. They must be equipped and authorized to communicate directly with their respective component commander. The senior liaisons have the responsibility of presenting component perspectives and considerations regarding planning and executing joint air operations.

- **Reference:** Joint Pub 3-56.1 page II-7; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 217
- **Aliases:**
- **Definition:** A Liaison is a contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action.

28.1.8. Air Strategy

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6, C-1
- **Aliases:**
- **Definition:** Air Strategy planners develop and plan the strategic direction for joint air operations. Strategy planners work with the JFACC/JFC staff to develop the overarching strategy and guidance for joint air operations which is developed in concert with the JFC's operation. Air strategy involves continuous planning process that may revise air strategy based on intelligence inputs, combat assessment and analysis of centers of gravity.

28.2. Links to other cards

- *About Objectives Determination Participation*

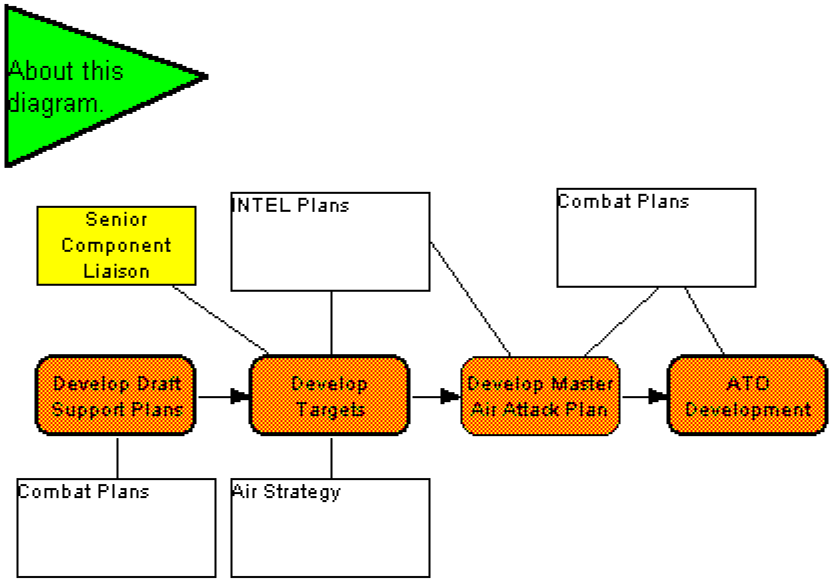
29. About Objectives Determination Participation

Air strategy is responsible for developing the JFACC objectives. Senior Component Liaisons participate to make sure that the other component's priorities are taken into consideration.

29.1. Links to other cards

None.

30. ATO Development Participation



30.1. Nodes

30.1.1. About this diagram.

- **type:** About
- **Linked to:** *About Develop ATO Participation*

30.1.2. Develop Master Air Attack Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:** MAAP
- **Definition:** This activity is the fist step in the actual mission planning process. The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions throughout the sortie period.

30.1.3. Develop Draft Support Plans

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Developing draft support plans at this point in the planning process involves assigning support assets at a capability level. Plans for support assets enable the force application aspect of the plan to execute successfully. Typically, the plans will be taken from plans for previous days during the conflict and modified slightly. These

plans will be fine tuned and assets assigned after the master air attack plan is developed.
The planners estimate the support plans at this point of the planning process so that they have a gross level understanding of what support assets they have and what their configuration will be. This enables the planners to develop realistic plans.

- **Linked to:** *Develop Draft Support Plans Participation*

30.1.4. Develop Targets

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Developing targets is the process of assigning targets to the prioritized, phased and sequenced objectives . The targets must satisfy the measures of merit for the tasks and objectives as well as help to meet the objectives of the other components that the air force is supporting.
- **Linked to:** *Develop Targets Participation*

30.1.5. ATO Development

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3056.1 page x, III-6
- **Aliases:**
- **Definition:** ATO development details how joint air operation will support the JFC's operation or campaign plan. During this phase, planners integrate the efforts of joint capabilities/forces, prioritize objectives and targets while accounting for current and potential threats, and conduct target development/system analysis. They also phase joint air operations with the JFC's operation or campaign plan, indicating what capabilities/forces will be required to achieve joint air operation objectives. Finally, during this phase, planners will complete a sustainability assessment and delineate the specific procedures for allocating, tasking, and exercising C2 of available air capabilities/forces.
- **Linked to:** *Release ATO Participation*

30.1.6. Combat Plans

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page viii
- **Aliases:**
- **Definition:** Combat Plans is responsible for planning future air operations. Combat Plans is a crucial component to all Air Operation Centers.

30.1.10. INTEL Plans

- **type:** Department
- **Documentation:** INTEL Plans will be composed of people from the intelligence group within the AOC.
- **Reference:** Joint Pub 3-56.1 page II-6; C-3
- **Aliases:**
- **Definition:** In conjunction with the combat plans. Plans Intelligence supports the

planning and development of the ATO. Normally collection management intelligence production, and target intelligence are three functions provided to the combat plans by plans intelligence cell.

30.1.12. Air Strategy

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6, C-1
- **Aliases:**
- **Definition:** Air Strategy planners develop and plan the strategic direction for joint air operations. Strategy planners work with the JFACC/JFC staff to develop the overarching strategy and guidance for joint air operations which is developed in concert with the JFC's operation. Air strategy involves continuous planning process that may revise air strategy based on intelligence inputs, combat assessment and analysis of centers of gravity.

30.1.14. Senior Component Liaison

- **type:** Agent
- **Documentation:** There are several senior component liaisons depending on the type of mission. The specific liaison types are linked to this node.
  The liaisons do take their daily tasking from the JFACC but the components from which they come have command of them.
  Senior component liaisons serve as conduits for direct coordination between the JFACC and their respective component commander. Senior liaisons possess the credibility and authority to represent their component commander on time sensitive and critical issues. They must be equipped and authorized to communicate directly with their respective component commander. The senior liaisons have the responsibility of presenting component perspectives and considerations regarding planning and executing joint air operations.
- **Reference:** Joint Pub 3-56.1 page II-7; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 217
- **Aliases:**
- **Definition:** A Liaison is a contact or intercommunication maintained between elements of military forces to ensure mutual understanding and unity of purpose and action.

30.2. Links to other cards

- *About Develop ATO Participation*
- *Develop Draft Support Plans Participation*
- *Develop Targets Participation*
- *Release ATO Participation*

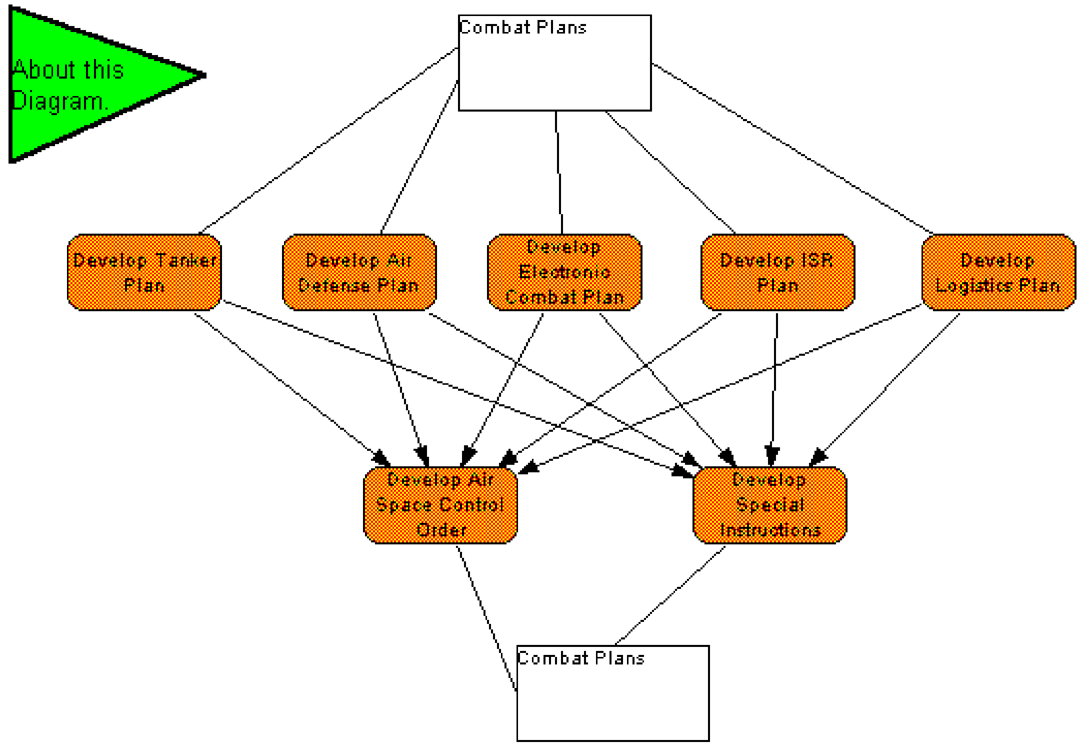
31. About Develop ATO Participation

Several organizations are integral to the development of the ATO. The Senior Component Liaisons are involved to be sure their component's priorities are considered; INTEL plans is involved to provide information and analysis capabilities; air strategy is involved to make sure the JFACC intent is filtered into the target selection; combat plans is involved to implement the JFACC guidance into an executable plan.

31.1. Links to other cards

None.

32. Develop Draft Support Plans Participation



32.1. Nodes

32.1.1. Develop Tanker Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 TBM C4I, AOC page 10,3
- **Aliases:**
- **Definition:** As the refueling requests are finalized, the tanker planning cell must develop the flow of refueling missions (both receivers and tankers) throughout the ATO period. The Duty Officer must schedule flights into the refueling tracks based on mission requirements, plan the offload amount and time, allow for spacing after each refueling (45 minutes between each mission), and schedule tanker sequencing to cover the missions.

32.1.2. Develop Air Defense Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:**
- **Definition:** This activity determines the required defensive arrangements as related to the air assets. This activity determines the location and number of aircraft on alert and

on Combat Air Patrol. Once assets to satisfy the defensive requirements have been identified, the remainder of the mission planning can commence.

32.1.3. Develop Air Space Control Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 7
- **Aliases:** ACO
- **Definition:** The Airspace Control Order establishes procedures for the airspace control system in the theater of operations. The ACO must be tied to the area air defense plan and coordinated with the fire support plan. The ACO considers procedures and interfaces with host nation air traffic systems necessary to effectively support air logistics, augmenting forces, and JTF Commander's objectives.
  Based on airspace control requirements and the alternatives developed to satisfy those requirements, airspace management planners coordinate initial plans and changes with the required agencies and planners.
  To deconflict airspace, the planners must coordinate with the host nation, inter theater assets, missions in planning and civil aviation authorities.
  The ACO is one of the last items completed because it depends heavily on planned missions.

32.1.4. Develop Special Instructions

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8
- **Aliases:** SPINS
- **Definition:** Information that does not easily fit into the formatted portion of the ATO, yet necessary for the complete understanding of the missions to be flown, is included in a free text portion of the ATO called the Special Instructions. This method is used to provide units with a wide range of information from non-coordination issues to communications to tanker missions, to changes in ROE. The instructions help to avoid problems.

32.1.5. About this Diagram.

- **type:** About
- **Linked to:** *About Develop Draft Support Plans Participation*

32.1.6. Develop Electronic Combat Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994, page 129; TBM C41, AOC page 10
- **Aliases:** EC Electronic Warfare (EW)
- **Definition:** Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy is considered electronic combat.

This activity plans, coordinates and tasks all EC missions.
Many of the allied forces that participate in theater operations will not have organic electronic combat capabilities and therefore rely on US provided support. In the interest of effective integration of all employed forces, the full range of EC support is provided.

32.1.7. Develop ISR Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** Intelligence, Surveillance and Reconnaissance
- **Definition:** The ISR plan describes how INTEL assets will be assigned.
  Currently, an ISR plan is not developed.

32.1.8. Develop Logistics Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** LOG
- **Definition:**

32.1.9. Combat Plans

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page viii
- **Aliases:**
- **Definition:** Combat Plans is responsible for planning future air operations. Combat Plans is a crucial component to all Air Operation Centers.

32.2. Links to other cards

- *About Develop Draft Support Plans Participation*

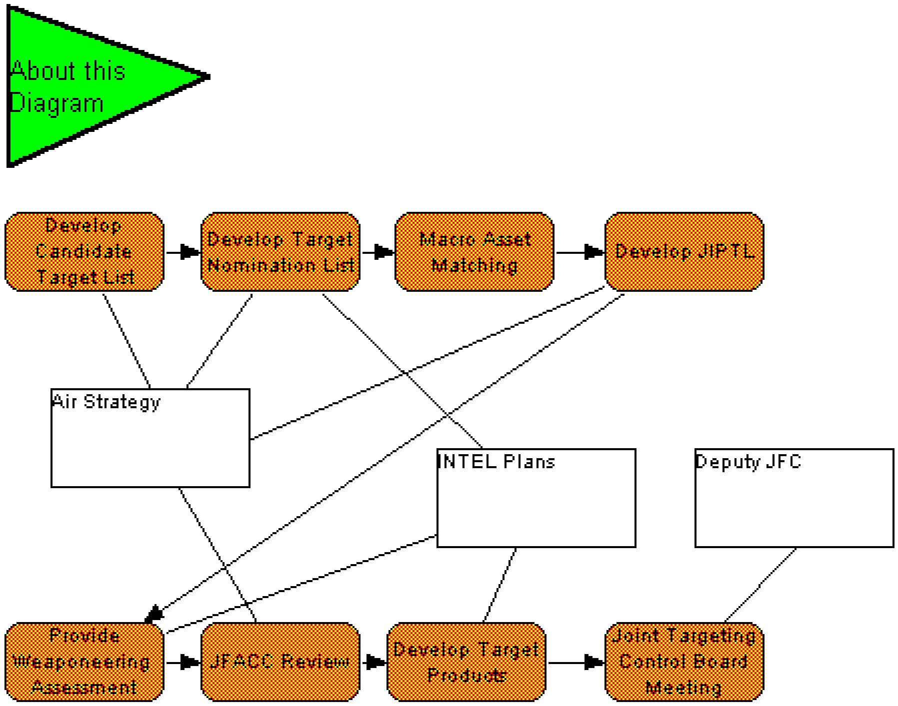
33. About Develop Draft Support Plans Participation

Because of the expertise required to develop the draft support plans, combat plans is the only organization conducting this set of tasks.

33.1. Links to other cards

None.

34. Develop Targets Participation



34.1. Nodes

34.1.1. Develop Candidate Target List

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page III-7; IV-2 - IV-4; IV-7; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** CTL
- **Definition:** The candidate target list is the targets that the air strategy cell wants to hit during the next ATO. The targets are not necessarily air targets only, they are targets that may be hit by any component but are required to be hit for the JFACC to accomplish his objectives.

34.1.2. Macro Asset Matching

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 10-19-96 Major Mark Alred Major Steve Cunico; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** This is a process of determining if there are enough assets in theater to hit the targets that are going into the JIPTL. This is a feasibility check to make sure the ATO is not going to be too ambitious.

34.1.3. Develop JIPTL

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 10; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** Joint Integrated Prioritized Target List
- **Definition:** The process involves prioritizing and compromising to satisfy individual service target requirements within the JFC guidance provided.
  Once the recommended JIPTL is developed, a meeting is held (sometimes called the JGAT meeting) where all of the air targets involved in the joint effort are prioritized. Combat plans and component liaisons attend the meeting.

34.1.4. Provide Weaponeering Assessment

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23; March 1994, page 412; Joint Pub 3-56.1 page IV-4; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Weaponeering is the process of determining the quantity of a specific type of lethal or nonlethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapon effect, munitions delivery accuracy, damage criteria, probability of kill, and weapon reliability. (DMPI analysis)
  Weaponeering does not officially happen at this point because the JFACC has not yet approved the results of the JGAT meeting. But, because of time constraints, work on weaponeering begins prior to JFACC approval, and any changes made by the JFACC are accommodated at that point. Weaponeering begins as soon as it possibly can.

34.1.5. Develop Target Nomination List

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** TNL
- **Definition:** This activity considers the component nominated target lists. If sufficient airpower is available, all targets will be serviced; if limited airpower, component target lists may have to be prioritized against each other.

34.1.6. JFACC Review

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** The JFACC reviews the recommended JIPTL. Before the JTCB meeting can occur, the JFACC approval is required.

34.1.7. Develop Target Products

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** The target products are a briefing on the targets selected for the next ATO. The briefing is presented to the Joint Targeting Control Board (JTCB).
  Preparing the briefing does not need to wait on JFACC review.

34.1.8. Joint Targeting Control Board Meeting

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:** JTCB
- **Definition:** One of the items addressed at the Joint Targeting Control Board (JTCB) is the targets being addressed in the next ATO. The JTCB must approve the JIPTL prior to ATO development.

34.1.9. About this Diagram

- **type:** About
- **Linked to:** *About Develop Targets Participation*

34.1.10. Air Strategy

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page II-6, C-1
- **Aliases:**
- **Definition:** Air Strategy planners develop and plan the strategic direction for joint air operations. Strategy planners work with the JFACC/JFC staff to develop the overarching strategy and guidance for joint air operations which is developed in concert with the JFC's operation. Air strategy involves continuous planning process that may revise air strategy based on intelligence inputs, combat assessment and analysis of centers of gravity.

34.1.12. INTEL Plans

- **type:** Department
- **Documentation:** INTEL Plans will be composed of people from the intelligence group within the AOC.
- **Reference:** Joint Pub 3-56.1 page II-6; C-3
- **Aliases:**
- **Definition:** In conjunction with the combat plans. Plans Intelligence supports the planning and development of the ATO. Normally collection management intelligence production, and target intelligence are three functions provided to the combat plans by plans intelligence cell.

34.1.14. Deputy JFC

- **type:** Department
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** Deputy Joint Forces Air Component Commander
- **Definition:** Assistant to the JFACC.

34.2. Links to other cards

- *About Develop Targets Participation*

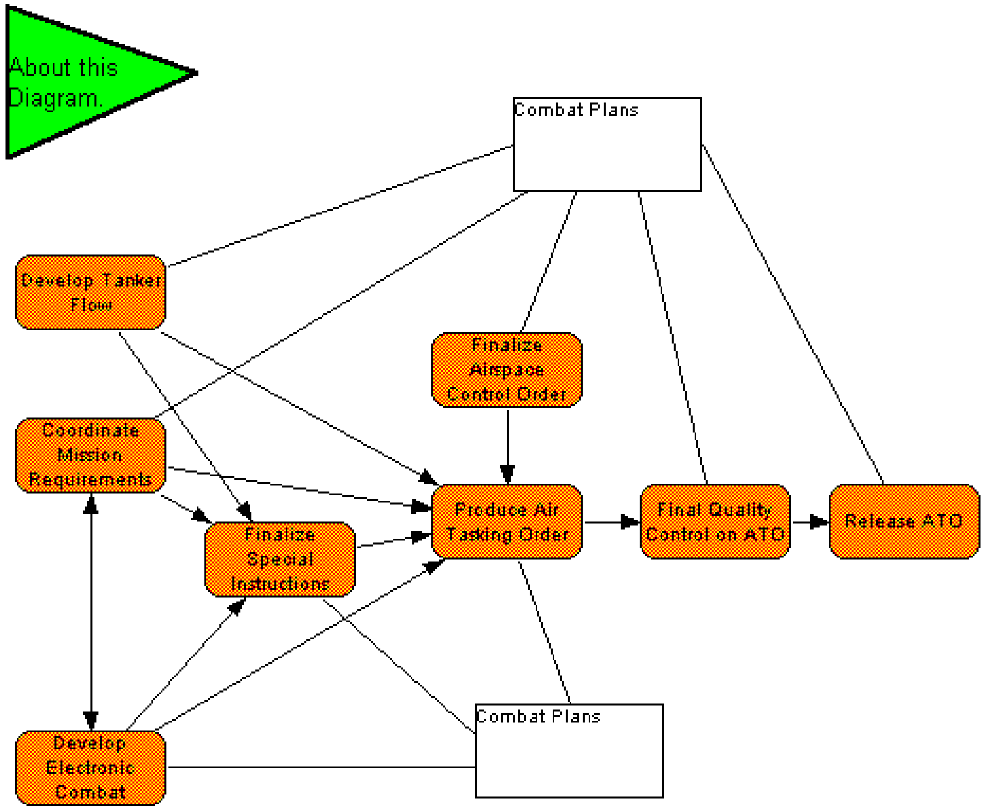
35. About Develop Targets Participation

Although air strategy has primary responsibility for developing the targets, INTEL plans conducts key steps of the process. The deputy JFACC has final approval of the results of this process. The deputy JFACC can give final approval at a meeting with each component represented, or he may choose to conduct the approval process without a meeting.

35.1. Links to other cards

None.

36. Release ATO Participation



36.1. Nodes

36.1.1. Finalize Airspace Control Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 7; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** ACO
- **Definition:** At this point, the ACO is modified and revised based on changes made since the draft support plans were put together.
  Based on airspace control requirements and the alternatives developed to satisfy those requirements, airspace management planners coordinate initial plans and changes with the required agencies and planners.
  To deconflict airspace, the planners must coordinate with the host nation, inter theater assets, missions in planning and civil aviation authorities.
  The ACO is one of the last items completed because it depends heavily on planned missions.

36.1.2. Develop Tanker Flow

- **type:** Activity

- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 TBM C4I, AOC page 10,3; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** At this point, tanker assets are assigned and added to the draft tanker plan. As the refueling requests are finalized, the tanker planning cell must develop the flow of refueling missions (both receivers and tankers) throughout the ATO period. The Duty Officer must schedule flights into the refueling tracks based on mission requirements, plan the offload amount and time, allow for spacing after each refueling (45 minutes between each mission), and schedule tanker sequencing to cover the missions.

36.1.3. Coordinate Mission Requirements

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8
- **Aliases:**
- **Definition:** The fighter duty officer planners must review the target groupings as they are developed and, based on target characteristics and the target and route threats, refine the support missions (tanker, EW,ISR, LOG, Counter Air, etc.) that will be needed for each group of targets. Any additional support requirements will be used by the support asset planners as well as being used in the development of the final time on target (TOT) flow.

36.1.4. Develop Electronic Combat Planning

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994, page 129; TBM C41, AOC page 10; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** EC Electronic Warfare (EW)
- **Definition:** At this point, assets are assigned to the EC plan.
  Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy is considered electronic combat. This activity plans, coordinates and tasks all EC missions.
  Many of the allied forces that participate in theater operations will not have organic electronic combat capabilities and therefore rely on US provided support. In the interest of effective integration of all employed forces, the full range of EC support is provided.

36.1.5. Finalize Special Instructions

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** SPINS
- **Definition:** At this point, the SPINS are modified and revised based on changes and additions made since the draft support plans were put together.

Information that does not easily fit into the formatted portion of the ATO, yet necessary for the complete understanding of the missions to be flown, is included in a free text portion of the ATO called the Special Instructions. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in ROE.

36.1.6. Produce Air Tasking Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4;IV-9; IV-10; TBM C4I, AOC page 10
- **Aliases:** ATO
- **Definition:** Producing the ATO is an iterative process until the planners verify that all missions are reflected properly in the ATO.

36.1.7. Final Quality Control on ATO

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4; TBM C41, AOC page 7
- **Aliases:**
- **Definition:** This activity represents the final check of the machine produced ATO. Various spot checks are made on the paper copy of the ATO and various "sorts" of the ATO data are made and compared with expected results.

36.1.8. Release ATO

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4; TBM C4I, AOC page 7
- **Aliases:**
- **Definition:** This represents the development of the various summaries of the planned missions that are contained in the ATO. The summaries are used to prepare briefings for commanders on the ATO that has been developed.

36.1.9. About this Diagram.

- **type:** About
- **Linked to:** *About Release ATO Participation*

36.1.10. Combat Plans

- **type:** Department
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page viii
- **Aliases:**
- **Definition:** Combat Plans is responsible for planning future air operations. Combat Plans is a crucial component to all Air Operation Centers.

36.2. Links to other cards

- *About Release ATO Participation*

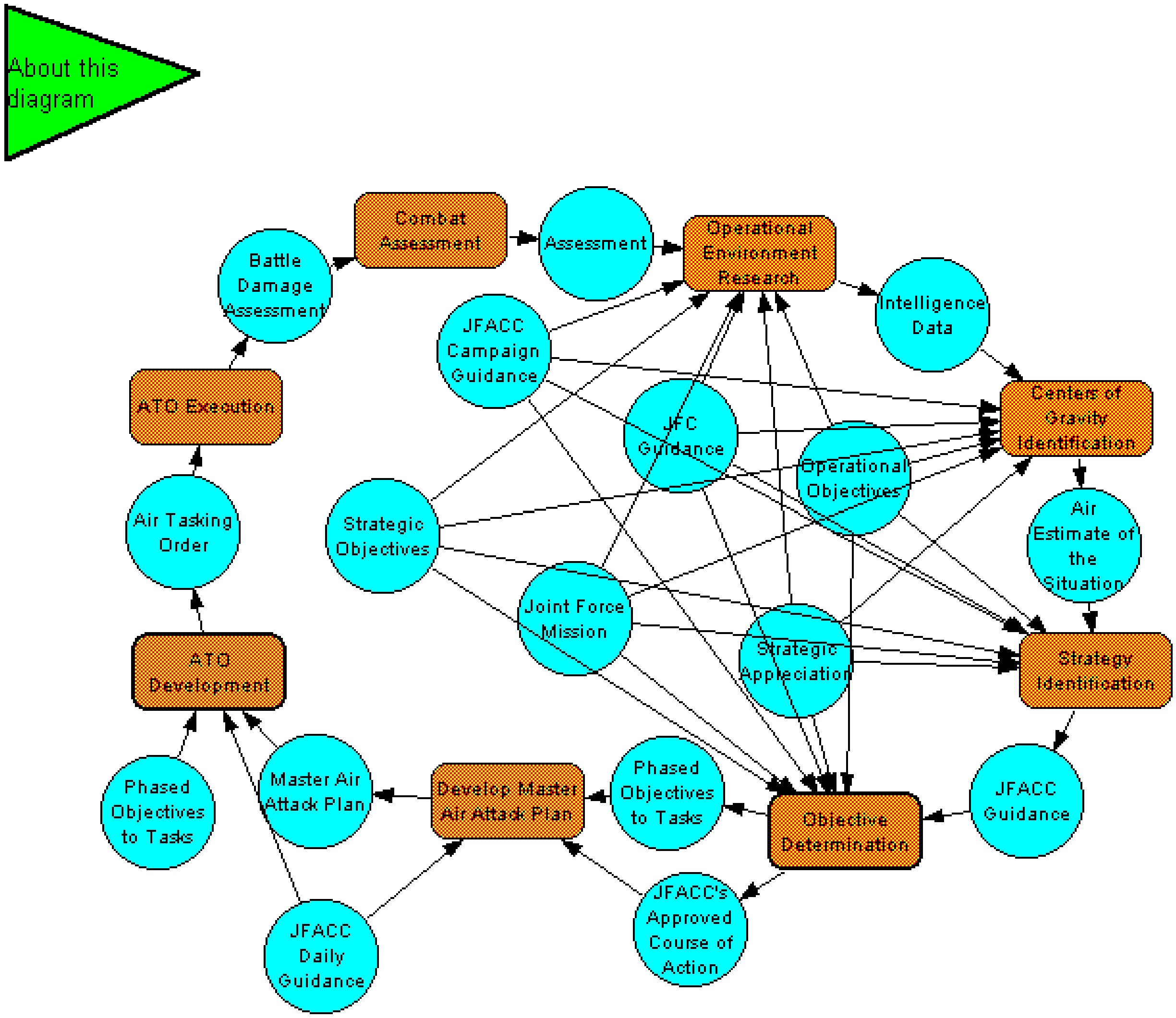
37. About Release ATO Participation

Combat plans has complete responsibility for completing the steps required to release the ATO.

37.1. Links to other cards

None

2. Joint Air Operations Planning Product Requirements



2.1. Nodes

2.1.1. About this diagram

- **type:** About
- **Linked to:** *About Joint Air Operations Planning Product Requirements*

2.1.2. Joint Force Mission

- **type:** State
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page III-1
- **Alias:**

- **Definition:** This is a high level statement describing the purpose for the joint task force and desired end state of the conflict.

2.1.3. Strategic Appreciation

- **type:** State
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page III-1
- **Alias:**
- **Definition:** The strategic appreciation is based on the political, economic, military, and social forces affecting the AOR/JOA.

2.1.4. Strategic Objectives

- **type:** State
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page III-4
- **Alias:**
- **Definition:** An objective is a clearly defined and quantifiable statement describing a contribution to the accomplishment of the desired end state.

2.1.5. Operational Objectives

- **type:** State
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page III-4
- **Alias:**
- **Definition:** An objective is a clearly defined and quantifiable statement describing a contribution to the accomplishment of the desired end state.

2.1.6. Air Estimate of the Situation

- **type:** State
- **Documentation:** This estimate is for the air component only.
- **Reference:** Joint Pub 3-56.1 page III-1; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 79, 134
- **Alias:** Commander's Estimate of the Situation
- **Definition:** An analysis of an actual or contemplated clandestine operation in relation to the situation in which it is or would be conducted in order to identify and appraise such factors as available and needed assets and potential obstacles, accomplishments and consequences.

2.1.7. JFC Guidance

- **type:** State
- **Documentation:** JFC guidance will encompassing the entire campaign providing guidance for each component involved in the joint task force.
- **Reference:** Joint Pub 3-56.1 page III-3; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 163
- **Alias:**
- **Definition:** Guidance is policy, direction, decision or instruction having the effect of an order when promulgated by a higher echelon.

2.1.8. JFACC's Approved Course of Action

- **type:** State
- **Documentation:** Through a briefing by the JFACC and/or the JFACC's staff, the JFC will review the JFACC's recommended COA. The JFC may approve the JFACC's COA immediately or it may go through an iteration of changes until the JFC is satisfied that it complies with the campaign objectives.
- **Reference:** Joint Pub 3-56.1 page III-1; Department of Defines Dictionary of Military and Associated Terms, 23 March 1994 page 97
- **Alias:** COA
- **Definition:** A course of action can thought of as a plan that would accomplish, or is related to, the accomplishment of a mission. More specifically, the course of action is the scheme adopted to accomplish a task or mission. The supported commander will include a recommended course of action in the commander's estimate. The recommended course of action will include the concept of operations, evaluation of supportability estimates of supporting organizations, and an integrated time-phased data base of combat, combat support, and combat service support forces and sustainment. Refinement of this data base will be contingent on the time available for course of action development.

2.1.9. Air Tasking Order

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 3; Joint Pub 3-56.1 page vii, IV-5, GL-4
- **Alias:** ATO
- **Definition:** There are usually three ATOs at any time; 1) the joint ATO in execution, 2) the joint ATO in production, and 3) the joint ATO in planning.

The ATO is used to task and disseminate to components, subordinate units, and command and control agencies those projected sorties/capabilities/forces to targets and specific missions. Normally it provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions.

2.1.10. JFACC Guidance

- **type:** State
- **Documentation:** This refers to the guidance the JFACC hands down to his subordinates.
- **Reference:** Joint Pub 3-56.1 page III-3; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 163
- **Alias:**
- **Definition:** Guidance is policy, direction, decision or instruction having the effect of an order when promulgated by a higher echelon.

2.1.11. Intelligence Data

- **type:** State
- **Documentation:**
- **Reference:** TBM C4I AOC page 2, 5
- **Alias:**
- **Definition:** This is an general term that identifies the wide variety of support provided by Intelligence assets assigned to the AOC. This support includes but is not limited to assessment of enemy intentions, current situation, threat updates, threat locations and capabilities, collection results, and target information.
  Intelligence data also includes Bomb Damage Assessment (BDA). BDA can be obtained through a variety of methods including aircrew debriefing, fun camera film, imagery interpretation, human observation (special forces), etc. This is all designed to provide commanders and planners with an assessment of how successful a particular mission has been as they determine whether there is a requirement to re-strike a target.

2.1.12. JFACC Campaign Guidance

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** While conducting the steps from operational research to

objective determination the JFACC will communicate to his staff his intentions and mission at the campaign level on a daily basis. This will include INTEL updates, force updates, intent updates and other types of information. This will commonly take the form of a text letter. This will help the planners understand the big picture.

2.1.13. Objective Determination

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page ix, III-3, 4
- **Aliases:**
- **Definition:** Objectives determination defines and quantifies objectives that will contribute to the accomplishment of the JFC's operation or campaign objectives.
- **Linked to:** *Objectives Determination Product Requirements*

2.1.14. Strategy Identification

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page x, III-4
- **Aliases:**
- **Definition:** The joint air strategy states how the JFACC plans to exploit joint air capabilities/forces to support the JFC's objectives.

2.1.15. Operational Environment Research

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page ix, III-3, III-4
- **Aliases:**
- **Definition:** This phase is focused on gaining information about friendly and adversary capabilities and intentions, doctrine, and the environment in which the operations will take place. The goal of this phase is to gain an understanding of the theater of operations, the adversary, and friendly forces available to accomplish the JFC's objectives.

2.1.16. Centers of Gravity Identification

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3-56.1 page x, III-5

- **Aliases:** COG
- **Definition:** Centers of Gravity identification is the identification of those adversary COGs which should be attacked to satisfy the JFC's strategic, operational, and tactical objectives and friendly COGs that should be defended.

2.1.17. ATO Development

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3056.1 page x, III-6
- **Aliases:**
- **Definition:** ATO development details how joint air operation will support the JFC's operation or campaign plan. During this phase, planners integrate the efforts of joint capabilities/forces, prioritize objectives and targets while accounting for current and potential threats, and conduct target development/system analysis. They also phase joint air operations with the JFC's operation or campaign plan, indicating what capabilities/forces will be required to achieve joint air operation objectives. Finally, during this phase, planners will complete a sustainability assessment and delineate the specific procedures for allocating, tasking, and exercising C2 of available air capabilities/forces.
- **Linked to:** *Develop ATO Product Requirements*

2.1.18. Develop Master Air Attack Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:** MAAP
- **Definition:** This activity is the fist step in the actual mission planning process. The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions throughout the sortie period.

2.1.19. ATO Execution

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman

- **Aliases:**
- **Definition:** ATO execution is the process of implementing the instructions in the ATO with real assets and real munitions.

2.1.20. Combat Assessment

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman; Checkmate session 9-96 Major Mark Alred Major Steve Cunico
- **Aliases:**
- **Definition:** Combat assessment is an "assessment of how the air operations plan is being prosecuted." Assessment seeks to understand the effect that the attacker had on the target and to measure this effect against the plan at multiple levels (campaign, force selection, mission integration, execution). After assessing the effects that the battle had, the planner can better understand how upcoming and previous plans should be affected. Combat assessment encompasses force application, LOG, ISR and air defense.

2.1.21. Master Air Attack Plan

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:** The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions throughout the sortie period.

2.1.22. Assessment

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:** This summarizes the direction which should be considered for future air operations planning.

2.1.23. Battle Damage Assessment

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:** BDA
- **Definition:** Battle Damage Assessment are the INTEL reports stating the results of a set of missions.

2.1.24. JFACC Daily Guidance

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** To help with the construction of the MAAP, the JFACC will develop JFACC guidance which focuses on the next 3 or 4 days. This helps detailed planners focus on what needs to go into the ATO rather than thinking about the entire campaign.

2.1.25. Phased Objectives to Tasks

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** Phased objectives have been decomposed, prioritized and sequenced as well as phased. The objectives capture the JFC and JFACC intent and have been elaborated to enough detail to show how the air component can accomplish its high level objectives. Phased objectives have a temporal feature explaining at what point in time the objectives will be satisfied. See linked air objective, prioritized objectives and sequenced objectives for more details.

2.2. Links to other cards

- *About Joint Air Operations Planning Product Requirements*
- *Objectives Determination Product Requirements*
- *Develop ATO Product Requirements*

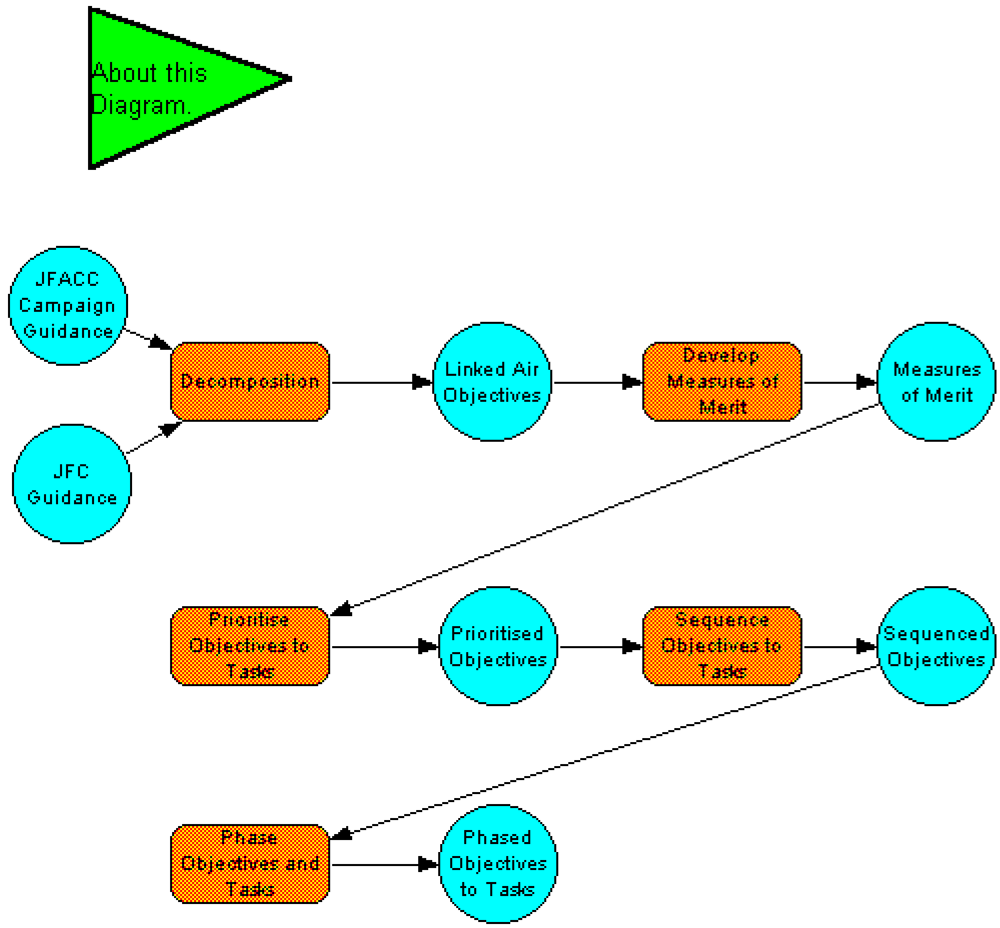
3. About Joint Air Operations Planning Product Requirements

This diagram shows which products are needed in order to complete a task of the joint air operations planning process and what products result from a task. The strategic appreciation, joint force mission, strategic objectives, operational objectives, JFACC campaign guidance and JFC guidance are continuously being assessed and possibly updated as the conflict proceeds. The planners need to be kept up-to-date on any changes in every step of the planning process. (Major Jack Allison, Major Mark Alred of Checkmate 5-20-96; Checkmate session 1-13-97 Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

3.1. Links to other cards

None.

4. Objectives Determination Product Requirements



4.1. Nodes

4.1.1. Prioritize Objectives to Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Prioritizing objectives involves determining which subset of objectives are most urgent. Prioritized objectives show which objectives are most imperative to the success of the mission according to JFC and JFACC intent.

4.1.2. Sequence Objectives to Tasks

- **type:** Activity

- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Objectives must be analyzed to determine which objectives enable the completion of other objectives. The analysis must be completed to decide which objectives must be completed first. Even though objective A may have a higher priority than objective B, objective B may need to be completed in order for objective A to be completed successfully and optimally. Sequenced objectives show the order in which objectives must be completed.

4.1.3. Phase Objectives and Tasks

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Conflicts are typically fought in phases where each phase accomplishes a very high level goal. An example of a phase is, "establish air superiority", or "prepare battlefield". The prioritized and sequenced objectives are placed in the appropriate phase. Phasing objectives and tasks adds a temporal aspect to the plan.

4.1.4. About this Diagram.

- **type:** About
- **Linked to:** *About Objective Determination Product Requirements*

4.1.5. Decomposition

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Decomposition is a process of combining, elaborating and refining the JFC's mission statement, intent and objectives with the JFACC's mission statement and intent. Once a clear vision for what the effort should accomplish has been established, the planners elaborate and refine the details until they have developed a linked set of objectives to tasks which reflects the intent of the JFC and the JFACC but also provides enough detail to actually conduct the battles required.

4.1.6. Develop Measures of Merit

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman; See IFD4 work conducted by Andre Valente, ISI
- **Aliases:** MOM
- **Definition:** Once objectives have been determined, the planners attach measures of merit to each objective and task in the entire objectives to task hierarchy. Measures of merit state when an objective should be considered accomplished. The best measures of merit are quantitative in nature, but often it is difficult to assign a numeric measure to an objective.

4.1.7. Linked Air Objectives

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** The planners take JFACC and JFC guidance and transform that information into a hierarchy of objectives to tasks. At the highest level will be campaign level objectives, below that air objectives and below that tasks. All of the objectives and tasks are linked to demonstrate how all contribute to the success of the campaign. The further down the hierarchy, the more precise the description.

4.1.8. Prioritized Objectives

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** Prioritized objectives have a numerical value assigned designating the highest to lowest significance to accomplishing the JFACC intent.

4.1.9. Sequenced Objectives

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve

Cunico Major Chris Bowman
- **Alias:**
- **Definition:** The rational deployment of forces requires that objectives be executed in an order which is not necessarily that same as priority. Some lower level objectives must be performed prior to higher level objectives to allow for the success of the higher level objectives. For example, high survivability requires that air superiority be accomplished prior to any other objective being accomplished. Sequenced objectives reflect the sequential order in which objectives must be accomplished.

4.1.10. Measures of Merit

- **type:** State
- **Documentation:**
- **Reference:** Major Mark Alred Major Jack Allison Session 5-20-96; Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:** MOM
- **Definition:** Measures of merit are indications of when an objective can be considered accomplished.

4.1.11. Phased Objectives to Tasks

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** Phased objectives have been decomposed, prioritized and sequenced as well as phased. The objectives capture the JFC and JFACC intent and have been elaborated to enough detail to show how the air component can accomplish its high level objectives. Phased objectives have a temporal feature explaining at what point in time the objectives will be satisfied. See linked air objective, prioritized objectives and sequenced objectives for more details.

4.1.12. JFC Guidance

- **type:** State
- **Documentation:** JFC guidance will encompassing the entire campaign providing guidance for each component involved in the joint task force.
- **Reference:** Joint Pub 3-56.1 page III-3; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 163
- **Alias:**

- **Definition:** Guidance is policy, direction, decision or instruction having the effect of an order when promulgated by a higher echelon.

4.1.13. JFACC Campaign Guidance

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** While conducting the steps from operational research to objective determination the JFACC will communicate to his staff his intentions and mission at the campaign level on a daily basis. This will include INTEL updates, force updates, intent updates and other types of information. This will commonly take the form of a text letter. This will help the planners understand the big picture.

4.2. Links to other cards

- *About Objective Determination Product Requirements*

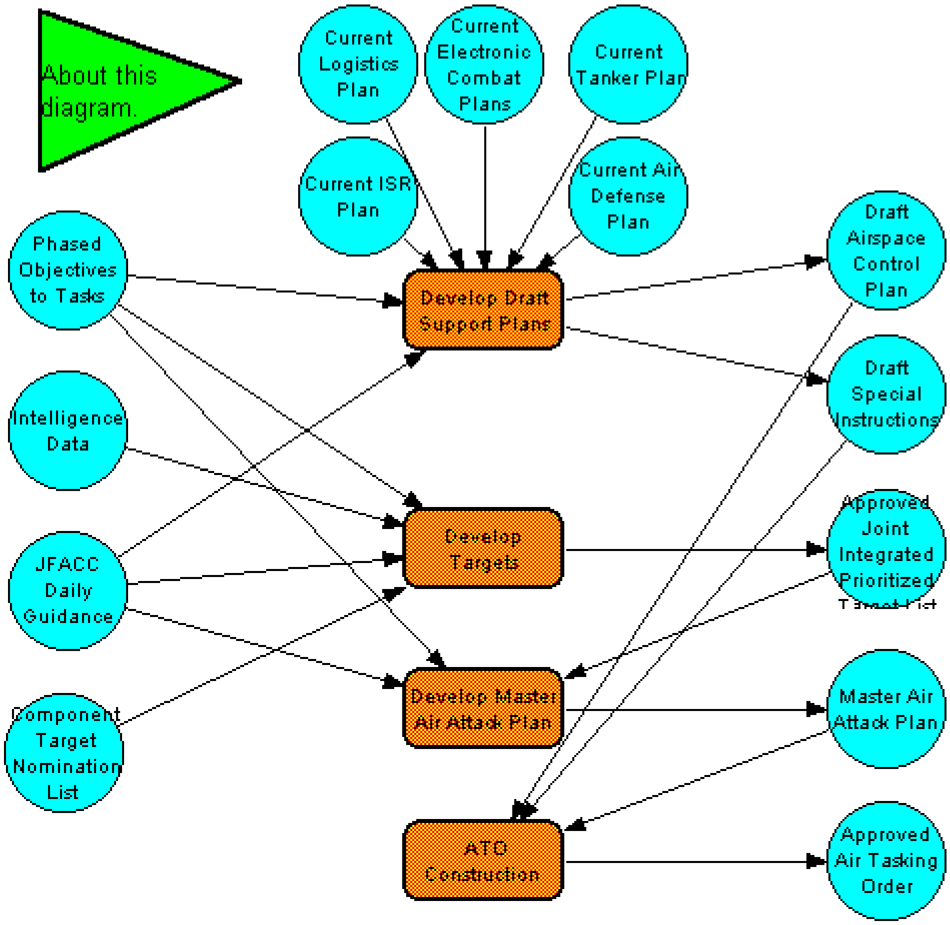
5. About Objective Determination Product Requirements

Typically, there are not separate deliverables representing linked objectives, MOMs, prioritized objectives, sequenced objectives and phased objectives. Multiple planners will work on various parts of this process as information and time becomes available. One portion of the plan may be taken all the way to phasing while other portions are left at high level campaign objective level. The purpose of this diagram is to show how the objectives develop into something that is executable.

5.1. Links to other cards

None.

6. Develop ATO Product Requirements



6.1. Nodes

6.1.1. About this diagram.

- **type:** About
- **Linked to:** *About ATO Development Product Requirements*

6.1.2. Develop Master Air Attack Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:** MAAP
- **Definition:** This activity is the fist step in the actual mission planning process. The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or

mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions throughout the sortie period.

6.1.3. Develop Draft Support Plans

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Developing draft support plans at this point in the planning process involves assigning support assets at a capability level. Plans for support assets enable the force application aspect of the plan to execute successfully. Typically, the plans will be taken from plans for previous days during the conflict and modified slightly. These plans will be fine tuned and assets assigned after the master air attack plan is developed. The planners estimate the support plans at this point of the planning process so that they have a gross level understanding of what support assets they have and what their configuration will be. This enables the planners to develop realistic plans.
- **Linked to:** *Develop Draft Support Plans Product Requirements*

6.1.4. Develop Targets

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** Developing targets is the process of assigning targets to the prioritized, phased and sequenced objectives . The targets must satisfy the measures of merit for the tasks and objectives as well as help to meet the objectives of the other components that the air force is supporting.
- **Linked to:** *Develop Targets Product Requirements*

6.1.5. ATO Construction

- **type:** Activity
- **Documentation:**
- **Reference:** Joint Pub 3056.1 page x, III-6
- **Aliases:**
- **Definition:** ATO development details how joint air operation will support the JFC's operation or campaign plan. During this phase, planners

integrate the efforts of joint capabilities/forces, prioritize objectives and targets while accounting for current and potential threats, and conduct target development/system analysis. They also phase joint air operations with the JFC's operation or campaign plan, indicating what capabilities/forces will be required to achieve joint air operation objectives. Finally, during this phase, planners will complete a sustainability assessment and delineate the specific procedures for allocating, tasking, and exercising C2 of available air capabilities/forces.

- **Linked to:** *ATO Construction Product Requirements*

6.1.6. JFACC Daily Guidance

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** To help with the construction of the MAAP, the JFACC will develop JFACC guidance which focuses on the next 3 or 4 days. This helps detailed planners focus on what needs to go into the ATO rather than thinking about the entire campaign.

6.1.7. Phased Objectives to Tasks

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** Phased objectives have been decomposed, prioritized and sequenced as well as phased. The objectives capture the JFC and JFACC intent and have been elaborated to enough detail to show how the air component can accomplish its high level objectives. Phased objectives have a temporal feature explaining at what point in time the objectives will be satisfied. See linked air objective, prioritized objectives and sequenced objectives for more details.

6.1.8. Draft Special Instructions

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:** SPINS
- **Definition:**

6.1.9. Draft Airspace Control Plan

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:**

6.1.10. Current Air Defense Plan

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:**

6.1.11. Current Tanker Plan

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:**

6.1.12. Current Logistics Plan

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:** LOG
- **Definition:**

6.1.13. Current ISR Plan

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:** Intelligence, Reconnaissance and Surveillance
- **Definition:**

6.1.14. Approved Air Tasking Order

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 3; Joint Pub 3-56.1 page vii, IV-5, GL-4
- **Alias:** ATO
- **Definition:** There are usually three ATOs at any time; 1) the joint ATO in execution, 2) the joint ATO in production, and 3) the joint ATO in planning.
  The ATO is used to task and disseminate to components, subordinate units, and command and control agencies those projected sorties/capabilities/forces to targets and specific missions. Normally it provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions.

6.1.15. Approved Joint Integrated Prioritized Target List

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page GL-6 TBM C4I AOC page 18
- **Alias:** JIPTL
- **Definition:** A prioritized list of targets and associated data approved by a joint force commander, and maintained by a joint task force. Targets and priorities are derived from the recommendations of components in conjunction with their proposed operations supporting the joint force commander's objectives and guidance.
  In many cases it is simply a collection of the component prioritized target lists. Much of the planning in the AOC begins with the recommended JIPTL.

6.1.16. Intelligence Data

- **type:** State
- **Documentation:**
- **Reference:** TBM C4I AOC page 2, 5
- **Alias:**
- **Definition:** This is an general term that identifies the wide variety of support provided by Intelligence assets assigned to the AOC. This support includes but is not limited to assessment of enemy intentions, current situation, threat updates, threat locations and capabilities,

collection results, and target information.
Intelligence data also includes Bomb Damage Assessment (BDA). BDA can be obtained through a variety of methods including aircrew debriefing, fun camera film, imagery interpretation, human observation (special forces), etc. This is all designed to provide commanders and planners with an assessment of how successful a particular mission has been as they determine whether there is a requirement to re-strike a target.

6.1.17. Master Air Attack Plan

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:** The planners review the targets to be struck during the next ATO period, group those targets based on geographical location or mission requirements, determine the available sorties, and identify support requirements. This results in a rough flow of missions throughout the sortie period.

6.1.18. Current Electronic Combat Plans

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 17; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 129
- **Alias:** EC electronic warfare EW
- **Definition:** Electronic Combat planners develop mission data for EC assets and provide this information for inclusion in the ATO. This information includes normal mission data, mission , unit assigned, of aircraft, target information, etc.

6.1.19. Component Target Nomination List

- **type:** State
- **Documentation:** Having the Target Nomination List implies that at least some weaponeering has been done.
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 11; Joint Pub 3-56.1 page III-1; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman

- **Alias:** TNL
- **Definition:** The Target Nomination List is the target list being used by the planners for the next ATO.

6.2. Links to other cards

- *About ATO Development Product Requirements*
- *Develop Draft Support Plans Product Requirements*
- *Develop Targets Product Requirements*
- *ATO Construction Product Requirements*

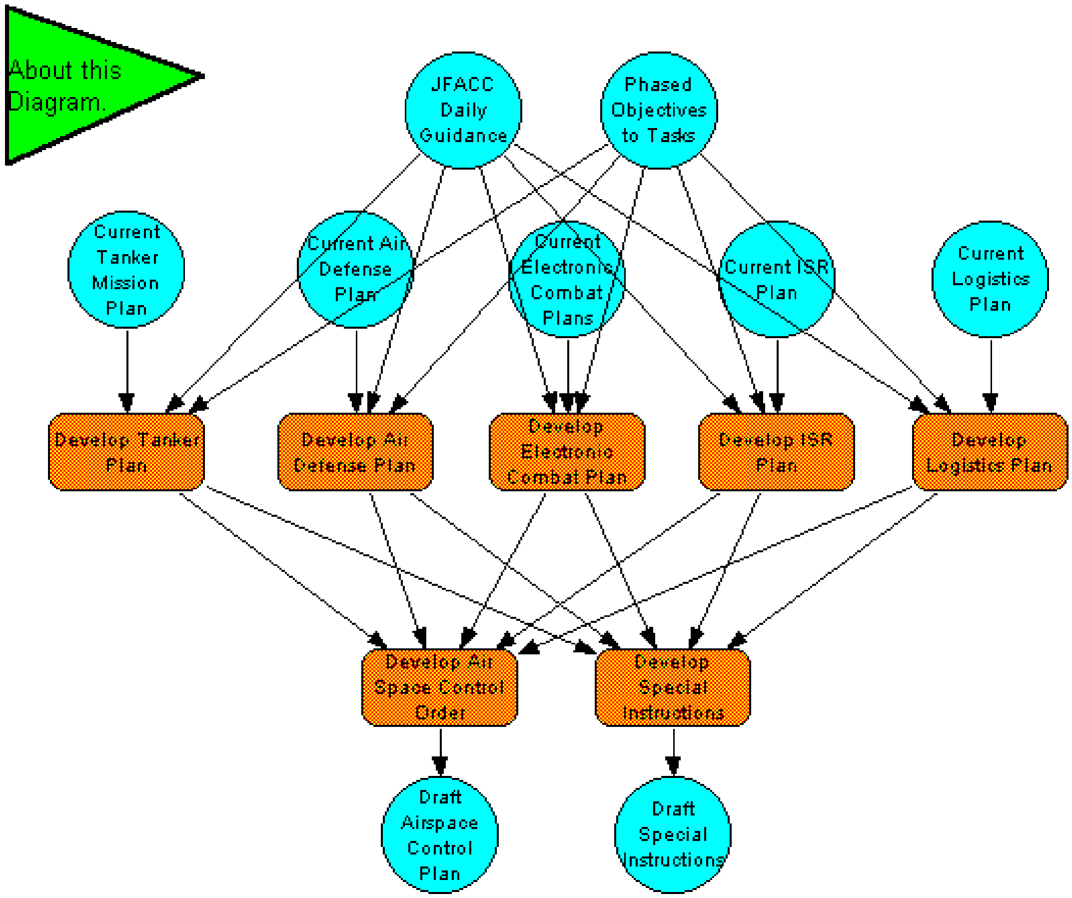
7. About ATO Development Product Requirements

Developing the ATO depends heavily on the JFACC daily guidance and the phased objectives to tasks hierarchy. Developing the ATO also relies on past planning efforts; the current support plans are used as a starting point for future planning which greatly reduces the effort since it is more a maintenance activity than a construction activity. For example, the same tanker tracks are used unless the tracks are not efficient or a threat develops. Throughout the entire process, INTEL updates will effect how the plan takes shape.
In other diagrams, the step do not denote a sequential order. However, in this diagram, the steps need to be completed in the order for the product to be passed on to the next step.

7.1. Links to other cards

None.

8. Develop Draft Support Plans Product Requirements



8.1. Nodes

8.1.1. Develop Tanker Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 TBM C4I, AOC page 10,3
- **Aliases:**
- **Definition:** As the refueling requests are finalized, the tanker planning cell must develop the flow of refueling missions (both receivers and tankers) throughout the ATO period. The Duty Officer must schedule flights into the refueling tracks based on mission requirements, plan the offload amount and time, allow for spacing after each refueling (45 minutes between each mission), and schedule tanker sequencing to cover the missions.

8.1.2. Develop Air Defense Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 6
- **Aliases:**
- **Definition:** This activity determines the required defensive arrangements as related to the air assets. This activity determines the location and number of aircraft on alert and on Combat Air Patrol. Once assets to satisfy the defensive requirements have been identified, the remainder of the mission planning can commence.

8.1.3. Develop Air Space Control Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 7
- **Aliases:** ACO
- **Definition:** The Airspace Control Order establishes procedures for the airspace control system in the theater of operations. The ACO must be tied to the area air defense plan and coordinated with the fire support plan. The ACO considers procedures and interfaces with host nation air traffic systems necessary to effectively support air logistics, augmenting forces, and JTF Commander's objectives.
  Based on airspace control requirements and the alternatives developed to satisfy those requirements, airspace management planners coordinate initial plans and changes with the required agencies and planners.
  To deconflict airspace, the planners must coordinate with the host nation, inter theater assets, missions in planning and civil aviation authorities. The ACO is one of the last items completed because it depends heavily on planned missions.

8.1.4. Develop Special Instructions

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8
- **Aliases:** SPINS
- **Definition:** Information that does not easily fit into the formatted portion of the ATO, yet necessary for the complete understanding of the

missions to be flown, is included in a free text portion of the ATO called the Special Instructions. This method is used to provide units with a wide range of information from non-coordination issues to communications to tanker missions, to changes in ROE. The instructions help to avoid problems.

8.1.5. About this Diagram.

- **type:** About
- **Linked to:** *About Develop Draft Support Plans Product Requirements*

8.1.6. Develop Electronic Combat Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994, page 129; TBM C41, AOC page 10
- **Aliases:** EC Electronic Warfare (EW)
- **Definition:** Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy is considered electronic combat.
  This activity plans, coordinates and tasks all EC missions.
  Many of the allied forces that participate in theater operations will not have organic electronic combat capabilities and therefore rely on US provided support. In the interest of effective integration of all employed forces, the full range of EC support is provided.

8.1.7. Develop ISR Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** Intelligence, Surveillance and Reconnaissance
- **Definition:** The ISR plan describes how INTEL assets will be assigned. Currently, an ISR plan is not developed.

8.1.8. Develop Logistics Plan

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve

Cunico Major Chris Bowman
- **Aliases:** LOG
- **Definition:**

8.1.9. Draft Airspace Control Plan

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page II-4, II-5, GL-4; see Joint Pub 1-02 for more information
- **Alias:** ACP
- **Definition:** This document, approved by the JFC, provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility. It also states the methods which will be used to deconflict, coordinate and integrate military operations.

8.1.10. Draft Special Instructions

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:** SPINS
- **Definition:**

8.1.11. Current Tanker Mission Plan

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I page 13
- **Alias:**
- **Definition:** This is final ATO inputs for the tanker missions.

8.1.12. Current Electronic Combat Plans

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 17; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 129
- **Alias:** EC electronic warfare EW

- **Definition:** Electronic Combat planners develop mission data for EC assets and provide this information for inclusion in the ATO. This information includes normal mission data, mission , unit assigned, of aircraft, target information, etc.

8.1.13. Current Air Defense Plan

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:**

8.1.14. Current ISR Plan

- **type:** State
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:** Intelligence, Surveillance and Reconnaissance
- **Definition:** A description of how ISR assets will be employed.

8.1.15. Current Logistics Plan

- **type:** State
- **Documentation:**
- **Reference:** Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:** LOG
- **Definition:** A description of how LOG assets will be employed.

8.1.16. JFACC Daily Guidance

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** To help with the construction of the MAAP, the JFACC will develop JFACC guidance which focuses on the next 3 or 4 days. This helps detailed planners focus on what needs to go into the ATO rather than thinking about the entire campaign.

8.1.17. Phased Objectives to Tasks

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** Phased objectives have been decomposed, prioritized and sequenced as well as phased. The objectives capture the JFC and JFACC intent and have been elaborated to enough detail to show how the air component can accomplish its high level objectives. Phased objectives have a temporal feature explaining at what point in time the objectives will be satisfied. See linked air objective, prioritized objectives and sequenced objectives for more details.

8.2. Links to other cards

- *About Develop Draft Support Plans Product Requirements*

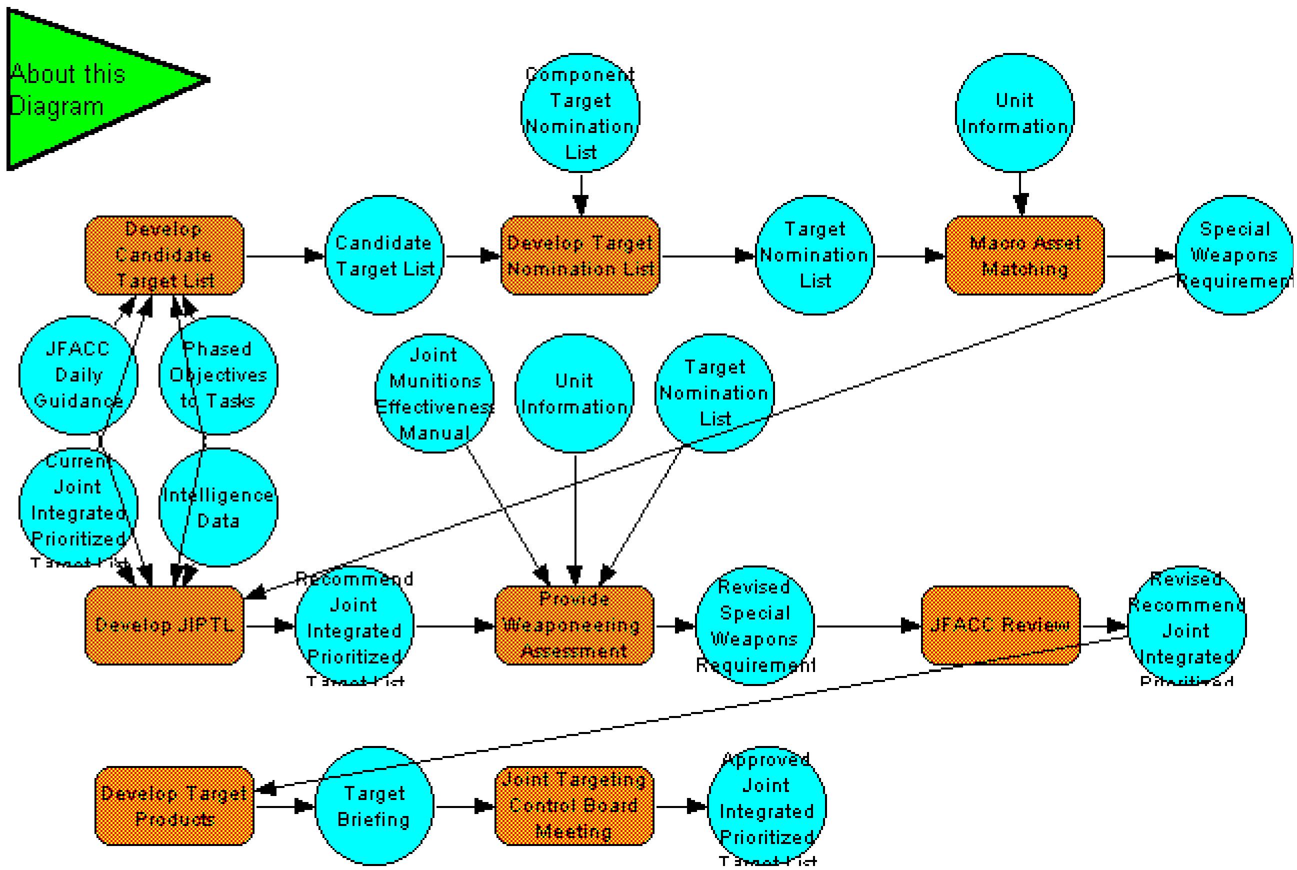
9. About Develop Draft Support Plans Product Requirements

Developing the draft support plans involves analyzing the capabilities required to support a force application mission. Typically, the plans from the previous planning cycle are used with minor adaptations. Once the support plans are completed, the plans are used to construct the airspace control order and the special instructions. Airspace coordination issues are put into the airspace control order and all other non-coordination issues are put into the special instructions. Pilots use the airspace control order, the special instructions and the air tasking order to plan their missions. (Checkmate session 1-13-97, Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

9.1. Links to other cards

None.

10. Develop Targets Product Requirements



10.1. Nodes

10.1.1. Develop Candidate Target List

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page III-7; IV-2 - IV-4; IV-7; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** CTL
- **Definition:** The candidate target list is the targets that the air strategy cell wants to hit during the next ATO. The targets are not necessarily air targets only, they are targets that may be hit by any component but are required to be hit for the JFACC to accomplish his objectives.

10.1.2. Macro Asset Matching

- **type:** Activity
- **Documentation:**
- **Reference:** Checkmate session 10-19-96 Major Mark Alred Major Steve Cunico; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** This is a process of determining if there are enough assets in theater to hit the targets that are going into the JIPTL. This is a feasibility check to make sure the ATO is not going to be too ambitious.

10.1.3. Develop JIPTL

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 10; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** Joint Integrated Prioritized Target List
- **Definition:** The process involves prioritizing and compromising to satisfy individual service target requirements within the JFC guidance provided. Once the recommended JIPTL is developed, a meeting is held (sometimes called the JGAT meeting) where all of the air targets involved in the joint effort are prioritized. Combat plans and component liaisons attend the meeting.

10.1.4. Provide Weaponeering Assessment

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23; March 1994, page 412; Joint Pub 3-56.1 page IV-4; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** Weaponeering is the process of determining the quantity of a specific type of lethal or nonlethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapon effect, munitions delivery accuracy, damage criteria, probability of kill, and weapon reliability. (DMPI analysis) Weaponeering does not officially happen at this point because the JFACC has not yet approved the results of the JGAT meeting. But,

because of time constraints, work on weaponeering begins prior to JFACC approval, and any changes made by the JFACC are accommodated at that point. Weaponeering begins as soon as it possibly can.

10.1.5. Develop Target Nomination List

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:** TNL
- **Definition:** This activity considers the component nominated target lists. If sufficient airpower is available, all targets will be serviced; if limited airpower, component target lists may have to be prioritized against each other.

10.1.6. JFACC Review

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:**
- **Definition:** The JFACC reviews the recommended JIPTL. Before the JTCB meeting can occur, the JFACC approval is required.

10.1.7. Develop Target Products

- **type:** Activity
- **Documentation:**
- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Aliases:**
- **Definition:** The target products are a briefing on the targets selected for the next ATO. The briefing is presented to the Joint Targeting Control Board (JTCB).
  Preparing the briefing does not need to wait on JFACC review.

10.1.8. Joint Targeting Control Board Meeting

- **type:** Activity
- **Documentation:**

- **Reference:** Major Mark Alred Major Steve Cunico Checkmate 10-29-96
- **Aliases:** JTCB
- **Definition:** One of the items addressed at the Joint Targeting Control Board (JTCB) is the targets being addressed in the next ATO. The JTCB must approve the JIPTL prior to ATO development.

10.1.9. About this Diagram

- **type:** About
- **Linked to:** *About Develop Targets Product Requirements*

10.1.10. Current Joint Integrated Prioritized Target List

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page GL-6 TBM C4I AOC page 18
- **Alias:** JIPTL
- **Definition:** A prioritized list of targets and associated data approved by a joint force commander, and maintained by a joint task force. Targets and priorities are derived from the recommendations of components in conjunction with their proposed operations supporting the joint force commander's objectives and guidance.
  In many cases it is simply a collection of the component prioritized target lists. Much of the planning in the AOC begins with the recommended JIPTL.

10.1.11. Intelligence Data

- **type:** State
- **Documentation:** operations feedback
- **Reference:** TBM C4I AOC page 2, 5
- **Alias:**
- **Definition:** This is an general term that identifies the wide variety of support provided by Intelligence assets assigned to the AOC. This support includes but is not limited to assessment of enemy intentions, current situation, threat updates, threat locations and capabilities, collection results, and target information.
  Intelligence data also includes Bomb Damage Assessment (BDA). BDA can be obtained through a variety of methods including aircrew debriefing, fun camera film, imagery interpretation, human observation (special forces), etc. This is all designed to provide commanders and planners with an assessment of how successful a particular mission has

been as they determine whether there is a requirement to re-strike a target.

10.1.12. JFACC Daily Guidance

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** To help with the construction of the MAAP, the JFACC will develop JFACC guidance which focuses on the next 3 or 4 days. This helps detailed planners focus on what needs to go into the ATO rather than thinking about the entire campaign.

10.1.13. Phased Objectives to Tasks

- **type:** State
- **Documentation:**
- **Reference:** Checkmate Session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:**
- **Definition:** Phased objectives have been decomposed, prioritized and sequenced as well as phased. The objectives capture the JFC and JFACC intent and have been elaborated to enough detail to show how the air component can accomplish its high level objectives. Phased objectives have a temporal feature explaining at what point in time the objectives will be satisfied. See linked air objective, prioritized objectives and sequenced objectives for more details.

10.1.14. Special Weapons Requirements

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram;
- **Alias:**
- **Definition:** These are requirements resulting from weaponeering.

10.1.15. Candidate Target List

- **type:** State
- **Documentation:**
- **Reference:**

- **Alias:**
- **Definition:** The candidate target list is the list of targets being considered for the next ATO cycle.

10.1.16. Joint Munitions Effectiveness Manual

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 22
- **Alias:** JMEM
- **Definition:** The JMEM is the source for weapon selection options. Coupled with the analyst's knowledge of the target and the available munitions within theater, weaponeering is performed.

10.1.17. Unit Information

- **type:** State
- **Documentation:**
- **Reference:** TBM C4I AOC page 22
- **Alias:**
- **Definition:** Unit information is manually maintained on a board in the Combat Plans location. Numbers change only if sortie rate is changed substantially (i.e. an entire squadron is lost.) Logistics information used by plans includes munitions availability at the units.

10.1.18. Target Nomination List

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 3
- **Alias:** TNL
- **Definition:** The Target Nomination List is the target list being used by the planners for preliminary planning while they await the final approval from the JTF Commander.

10.1.19. Approved Joint Integrated Prioritized Target List

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM

Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page GL-6 TBM C4I AOC page 18

- **Alias:** JIPTL
- **Definition:** A prioritized list of targets and associated data approved by a joint force commander, and maintained by a joint task force. Targets and priorities are derived from the recommendations of components in conjunction with their proposed operations supporting the joint force commander's objectives and guidance.
  In many cases it is simply a collection of the component prioritized target lists. Much of the planning in the AOC begins with the recommended JIPTL.

10.1.20. Recommended Joint Integrated Prioritized Target List

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page GL-6 TBM C4I AOC page 18
- **Alias:** JIPTL
- **Definition:** A prioritized list of targets and associated data approved by a joint force commander, and maintained by a joint task force. Targets and priorities are derived from the recommendations of components in conjunction with their proposed operations supporting the joint force commander's objectives and guidance.
  In many cases it is simply a collection of the component prioritized target lists. Much of the planning in the AOC begins with the recommended JIPTL.

10.1.21. Revised Special Weapons Requirements

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram;
- **Alias:**
- **Definition:** These are requirements resulting from weaponeering.

10.1.22. Revised Recommended Joint Integrated Prioritized Target List

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-

56.1 page GL-6 TBM C4I AOC page 18
- **Alias:** JIPTL
- **Definition:** A prioritized list of targets and associated data approved by a joint force commander, and maintained by a joint task force. Targets and priorities are derived from the recommendations of components in conjunction with their proposed operations supporting the joint force commander's objectives and guidance.
  In many cases it is simply a collection of the component prioritized target lists. Much of the planning in the AOC begins with the recommended JIPTL.

10.1.23. Target Briefing

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:**

10.1.24. Component Target Nomination List

- **type:** State
- **Documentation:** Having the Target Nomination List implies that at least some weaponeering has been done.
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 11; Joint Pub 3-56.1 page III-1; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:** TNL
- **Definition:** The Target Nomination List is the target list being used by the planners for the next ATO.

10.1.25. Target Nomination List

- **type:** State
- **Documentation:** Having the Target Nomination List implies that at least some weaponeering has been done.
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 11; Joint Pub 3-56.1 page III-1; Checkmate session 1-13-97 Major Mark Alred Major Steve Cunico Major Chris Bowman
- **Alias:** TNL
- **Definition:** The Target Nomination List is the target list being used by the planners for the next ATO.

10.1.26. Unit Information

- **type:** State
- **Documentation:**
- **Reference:** TBM C4I AOC page 22
- **Alias:**
- **Definition:** Unit information is manually maintained on a board in the Combat Plans location. Numbers change only if sortie rate is changed substantially (i.e. an entire squadron is lost.) Logistics information used by plans includes munitions availability at the units.

10.2. Links to other cards

- *About Develop Targets Product Requirements*

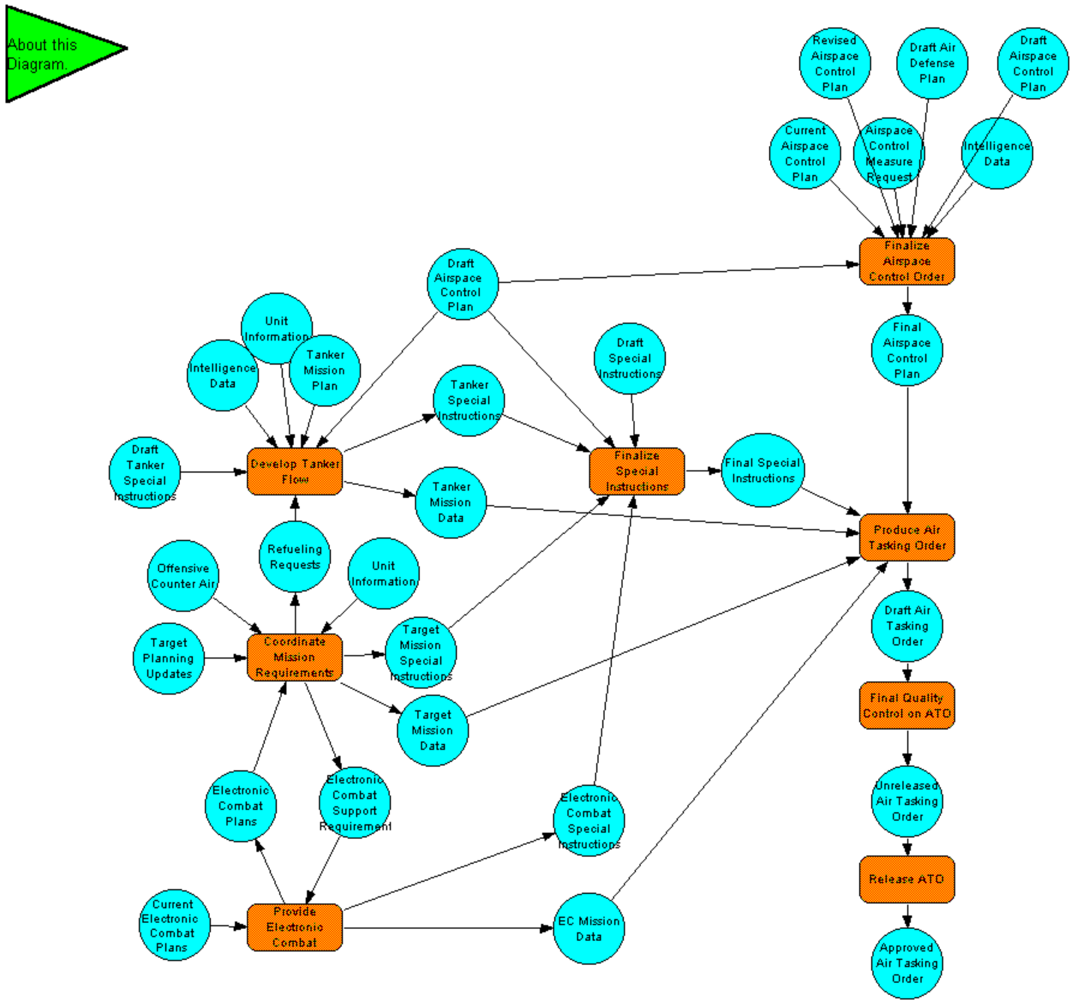
11. About Develop Targets Product Requirements

The phased objectives to tasks are refined one more step into a target list, the candidate target list. Once the other component targets are provided, the target list becomes the target nomination list for the next ATO cycle. The target nomination list is analyzed and refined and eventually massaged into the recommended joint integrated prioritized target list. After a series of review processes, the joint integrated prioritized target list is approved. The approved joint integrated prioritized target list is used to generate the next ATO.

11.1. Links to other cards

None.

12. ATO Construction Product Requirements



12.1. Nodes

12.1.1. Finalize Airspace Control Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 7
- **Aliases:** ACO
- **Definition:** Based on airspace control requirements and the alternatives developed to satisfy those requirements, airspace management planners coordinate initial plans and changes with the required agencies and planners.
  To deconflict airspace, the planners must coordinate with the host nation,

inter theater assets, missions in planning and civil aviation authorities. The ACO is one of the last items completed because it depends heavily on planned missions.

12.1.2. Develop Tanker Flow

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 TBM C4I, AOC page 10,3
- **Aliases:**
- **Definition:** As the refueling requests are finalized, the tanker planning cell must develop the flow of refueling missions (both receivers and tankers) throughout the ATO period. The Duty Officer must schedule flights into the refueling tracks based on mission requirements, plan the offload amount and time, allow for spacing after each refueling (45 minutes between each mission), and schedule tanker sequencing to cover the missions.

12.1.3. Coordinate Mission Requirements

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8
- **Aliases:**
- **Definition:** The fighter duty officer planners must review the target groupings as they are developed and, based on target characteristics and the target and route threats, refine the support missions (tanker, EW, Counter Air, etc.) that will be needed for each group of targets. Any additional support requirements will be used by the support asset planners as well as being used in the development of the final time on target (TOT) flow.

12.1.4. Provide Electronic Combat Planning

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994, page 129; TBM C41, AOC page 10
- **Aliases:** EC Electronic Warfare (EW)
- **Definition:** Any military action involving the use of electromagnetic and

directed energy to control the electromagnetic spectrum or to attack the enemy is considered electronic combat.
This activity plans, coordinates and tasks all EC missions.
Many of the allied forces that participate in theater operations will not have organic electronic combat capabilities and therefore rely on US provided support. In the interest of effective integration of all employed forces, the full range of EC support is provided.

12.1.5. Finalize Special Instructions

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; TBM C4I, AOC page 8
- **Aliases:** SPINS
- **Definition:** Information that does not easily fit into the formatted portion of the ATO, yet necessary for the complete understanding of the missions to be flown, is included in a free text portion of the ATO called the Special Instructions. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in ROE.

12.1.6. Produce Air Tasking Order

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4;IV-9; IV-10; TBM C4I, AOC page 10
- **Aliases:** ATO
- **Definition:** Producing the ATO is an iterative process until the planners verify that all missions are reflected properly in the ATO.

12.1.7. Final Quality Control on ATO

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4; TBM C41, AOC page 7
- **Aliases:**
- **Definition:** This activity represents the final check of the machine produced ATO. Various spot checks are made on the paper copy of the ATO and various "sorts" of the ATO data are made and compared with

expected results.

12.1.8. Release ATO

- **type:** Activity
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994; Joint Pub 3-56.1 page IV-4; TBM C4I, AOC page 7
- **Aliases:**
- **Definition:** This represents the development of the various summaries of the planned missions that are contained in the ATO. The summaries are used to prepare briefings for commanders on the ATO that has been developed.

12.1.9. Current Airspace Control Plan

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page II-4, II-5, GL-4; see Joint Pub 1-02 for more information
- **Alias:** ACP
- **Definition:** This document, approved by the JFC, provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility. It also states the methods which will be used to deconflict, coordinate and integrate military operations.

12.1.10. Intelligence Data

- **type:** State
- **Documentation:**
- **Reference:** TBM C4I AOC page 2, 5
- **Alias:**
- **Definition:** This is an general term that identifies the wide variety of support provided by Intelligence assets assigned to the AOC. This support includes but is not limited to assessment of enemy intentions, current situation, threat updates, threat locations and capabilities, collection results, and target information.
  Intelligence data also includes Bomb Damage Assessment (BDA). BDA can be obtained through a variety of methods including aircrew debriefing, fun camera film, imagery interpretation, human observation (special forces), etc. This is all designed to provide commanders and planners with an assessment of how successful a particular mission has

been as they determine whether there is a requirement to re-strike a target.

12.1.11. Airspace Control Measure Request

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 3
- **Alias:** ACM
- **Definition:** The airspace control measure request provides the user with a way to indicate that airspace has special significance when requesting that a future ACO specify a particular control means for the airspace.

12.1.12. Draft Airspace Control Plan

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page II-4, II-5, GL-4; see Joint Pub 1-02 for more information
- **Alias:** ACP
- **Definition:** This document, approved by the JFC, provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility. It also states the methods which will be used to deconflict, coordinate and integrate military operations.

12.1.13. Final Airspace Control Plan

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page II-4, II-5, GL-4; see Joint Pub 1-02 for more information
- **Alias:** ACP
- **Definition:** This document, approved by the JFC, provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility. It also states the methods which will be used to deconflict, coordinate and integrate military operations.

12.1.14. Intelligence Data

- **type:** State

- **Documentation:**
- **Reference:** TBM C4I AOC page 2, 5
- **Alias:**
- **Definition:** This is an general term that identifies the wide variety of support provided by Intelligence assets assigned to the AOC. This support includes but is not limited to assessment of enemy intentions, current situation, threat updates, threat locations and capabilities, collection results, and target information.
  Intelligence data also includes Bomb Damage Assessment (BDA). BDA can be obtained through a variety of methods including aircrew debriefing, fun camera film, imagery interpretation, human observation (special forces), etc. This is all designed to provide commanders and planners with an assessment of how successful a particular mission has been as they determine whether there is a requirement to re-strike a target.

12.1.15. Unit Information

- **type:** State
- **Documentation:** Information from the units concerning the availability and status of refueling assets in theater.
- **Reference:** TBM C4I AOC page 22, 13
- **Alias:**
- **Definition:** Unit information is manually maintained on a board in the Combat Plans location. Numbers change only if sortie rate is changed substantially (i.e. an entire squadron is lost.) Logistics information used by plans includes munitions availability at the units.

12.1.16. Tanker Mission Data

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I page 13
- **Alias:**
- **Definition:** This is final ATO inputs for the tanker missions.

12.1.17. Tanker Special Instructions

- **type:** State
- **Documentation:** The tanker special instructions includes information concerning the refueling missions scheduled.
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM

Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 13; Joint Pub 3-56.1 page vi
- **Alias:** SPINS
- **Definition:** Special Instructions includes information that does not easily fit into the formatted portion of the ATO, yet is necessary for the complete understanding of the missions to be flown. The special instructions are included in a free text portion of the ATO. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in rules of engagement (ROEs).

12.1.18. Final Special Instructions

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 20; Joint Pub 3-56.1 page vi
- **Alias:** SPINS
- **Definition:** Special Instructions includes information that does not easily fit into the formatted portion of the ATO, yet is necessary for the complete understanding of the missions to be flown. The special instructions are included in a free text portion of the ATO. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in rules of engagement (ROEs).

12.1.19. Unit Information

- **type:** State
- **Documentation:**
- **Reference:** TBM C4I AOC page 22
- **Alias:**
- **Definition:** Unit information is manually maintained on a board in the Combat Plans location. Numbers change only if sortie rate is changed substantially (i.e. an entire squadron is lost.) Logistics information used by plans includes munitions availability at the units.

12.1.20. Target Planning Updates

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram

- **Alias:**
- **Definition:** These are updates to the target list as provided by update intelligence.

12.1.21. Offensive Counter Air

- **type:** State
- **Documentation:** This assumes all aspects of mission requirements are coordinated.
- **Reference:** Major Mark Alred Major Jack Allison Session 5-20-96
- **Alias:** OCA
- **Definition:**

12.1.22. Refueling Requests

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 11
- **Alias:**
- **Definition:** Mission planners must request tanker support for the mission packages they are developing. This refueling request includes items such as time, location, and type of aircraft, amount of fuel required, and mission identifiers.

12.1.23. Target Mission Data

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I page 13
- **Alias:**
- **Definition:** This is final ATO inputs for the target missions. The information represents the data necessary for a unit to plan and execute the air mission.

12.1.24. Electronic Combat Support Requirements

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I page

7

- **Alias:**
- **Definition:** EC support requirements are received from a wide range of users including planners in the AOC, as well as individual units. The type of requests also vary from collection requests to self protection pod reprogramming assistance.

12.1.25. Target Mission Special Instructions

- **type:** State
- **Documentation:** The special instructions required for target missions.
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 20; Joint Pub 3-56.1 page vi
- **Alias:** SPINS
- **Definition:** Special Instructions includes information that does not easily fit into the formatted portion of the ATO, yet is necessary for the complete understanding of the missions to be flown. The special instructions are included in a free text portion of the ATO. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in rules of engagement (ROEs).

12.1.26. Electronic Combat Plans

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 17; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 129
- **Alias:** EC electronic warfare EW
- **Definition:** Electronic Combat planners develop mission data for EC assets and provide this information for inclusion in the ATO. This information includes normal mission data, mission , unit assigned, of aircraft, target information, etc.

12.1.27. Electronic Combat Special Instructions

- **type:** State
- **Documentation:** Electronic Combat planners provide EC related special instructions for inclusion in the ATO. These may be changes to previously provided planning information or new guidance for use in carrying out EC missions. On a weekly basis the electronic combat

tasking message is produced as part of the SPINS and provides overall EC plans for the next week's operations for EC units.

- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 27; Joint Pub 3-56.1 page vi
- **Alias:** SPINS
- **Definition:** Special Instructions includes information that does not easily fit into the formatted portion of the ATO, yet is necessary for the complete understanding of the missions to be flown. The special instructions are included in a free text portion of the ATO. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in rules of engagement (ROEs).

12.1.28. EC Mission Data

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I page 17
- **Alias:**
- **Definition:** This is final ATO inputs for the EC missions and any required special instructions that provide updates to the weekly EC tasking message.

12.1.29. Draft Air Tasking Order

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 3; Joint Pub 3-56.1 page vii, IV-5, GL-4
- **Alias:** ATO
- **Definition:** There are usually three ATOs at any time; 1) the joint ATO in execution, 2) the joint ATO in production, and 3) the joint ATO in planning.
  The ATO is used to task and disseminate to components, subordinate units, and command and control agencies those projected sorties/capabilities/forces to targets and specific missions. Normally it provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions.

12.1.30. Unreleased Air Tasking Order

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 3; Joint Pub 3-56.1 page vii, IV-5, GL-4
- **Alias:** ATO
- **Definition:** There are usually three ATOs at any time; 1) the joint ATO in execution, 2) the joint ATO in production, and 3) the joint ATO in planning.
  The ATO is used to task and disseminate to components, subordinate units, and command and control agencies those projected sorties/capabilities/forces to targets and specific missions. Normally it provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions.

12.1.31. Approved Air Tasking Order

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 3; Joint Pub 3-56.1 page vii, IV-5, GL-4
- **Alias:** ATO
- **Definition:** There are usually three ATOs at any time; 1) the joint ATO in execution, 2) the joint ATO in production, and 3) the joint ATO in planning.
  The ATO is used to task and disseminate to components, subordinate units, and command and control agencies those projected sorties/capabilities/forces to targets and specific missions. Normally it provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions.

12.1.32. About this Diagram.

- **type:** About
- **Linked to:** *About ATO Construction Product Requirements*

12.1.33. Revised Airspace Control Plan

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page II-4, II-5, GL-4; see Joint Pub 1-02 for more information

- **Alias:** ACP
- **Definition:** This document, approved by the JFC, provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility. It also states the methods which will be used to deconflict, coordinate and integrate military operations.

12.1.34. Draft Air Defense Plan

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:**
- **Definition:**

12.1.35. Tanker Mission Plan

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I page 13
- **Alias:**
- **Definition:** This is final ATO inputs for the tanker missions.

12.1.36. Draft Tanker Special Instructions

- **type:** State
- **Documentation:** The tanker special instructions includes information concerning the refueling missions scheduled.
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 13; Joint Pub 3-56.1 page vi
- **Alias:** SPINS
- **Definition:** Special Instructions includes information that does not easily fit into the formatted portion of the ATO, yet is necessary for the complete understanding of the missions to be flown. The special instructions are included in a free text portion of the ATO. This method is used to provide units with a wide range of information from communications to tanker missions, to changes in rules of engagement (ROEs).

12.1.37. Draft Airspace Control Plan

- **type:** State

- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; Joint Pub 3-56.1 page II-4, II-5, GL-4; see Joint Pub 1-02 for more information
- **Alias:** ACP
- **Definition:** This document, approved by the JFC, provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility. It also states the methods which will be used to deconflict, coordinate and integrate military operations.

12.1.38. Draft Special Instructions

- **type:** State
- **Documentation:**
- **Reference:**
- **Alias:** SPINS
- **Definition:**

12.1.39. Current Electronic Combat Plans

- **type:** State
- **Documentation:**
- **Reference:** Technical Report DRIY-TR-1994-001 HQ ACC/DRIY TBM Architecture Project 25 January 1994 summary diagram; TBM C4I AOC page 17; Department of Defense Dictionary of Military and Associated Terms, 23 March 1994 page 129
- **Alias:** EC electronic warfare EW
- **Definition:** Electronic Combat planners develop mission data for EC assets and provide this information for inclusion in the ATO. This information includes normal mission data, mission , unit assigned, of aircraft, target information, etc.

12.2. Links to other cards

- *About ATO Construction Product Requirements*

13. About ATO Construction Product Requirements

ATO development begins with revising, further developing and choosing assets to perform capabilities in the support plans. Then, the special instructions and airspace control order are finalized based on changes to the draft support plans. Then, actual ATO production can begin. The ATO is checked over thoroughly and reviewed by the JFACC before it is released to combat operations for execution. (Checkmate session 1-13-97, Major Mark Alred, Major Steve Cunico, Major Chris Bowman)

13.1. Links to other cards

None.