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Operations

CINCNORAD EXERCISE PROGRAM



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This instruction implements Chairman of the Joint Chiefs of Staff Manual (CJCSM), *Joint Training Manual for the Armed Forces of the United States*. It provides guidance for planning and conducting joint training within the Joint Training System. It establishes requirements and prescribes policy, methods and procedures for the conduct of Headquarters North American Aerospace Defense Command (NORAD) and NORAD region exercise programs. It provides guidance to other commands and agencies which support the Commander in Chief, NORAD (CINCNORAD). This instruction is directive for all NORAD personnel involved in the CINCNORAD Exercise Program. Nothing within this instruction is viewed as a substitute for good judgment, nor does it supersede other Command regulations or instructions. Where conflicts exist, the more restrictive regulation or instruction applies. It does apply to Air Force Reserve Command (AFRC) and Air National Guard units. The reporting requirements in this directive are exempt from report control symbol (RCS) licensing in accordance with AFI 37-124, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Inter-agency Air Force Information Collections*. NORAD regions and sectors supplement this instruction as appropriate to cover region/sector-unique requirements. Forward copies of region/sector supplements to HQ NORAD-USSPACECOM/IG, 125 E. Ent Ave., Peterson AFB CO 80914-1283, and HQ NORAD/J3Z, 250 S. Peterson Blvd. Ste 116, Peterson AFB CO 80914-3270.

SUMMARY OF REVISIONS

Where applicable, references to regulations have been changed to reflect their new designation and title. A new subparagraph outlining HQ NORAD-USSPACECOM Intelligence support responsibilities has been added (para 1.3.5.). Responsibilities for DEA/Customs/CD has been changed from NJ3D to NJ3OD (Table 2.1.). Responsibilities for the Blue Force Simulation Cell Chief have been updated (para 2.4.3.). AMAZON DOLLY has been replaced by AMAZON CONDOR and manning responsibilities have been updated. VIGILANT GUARDIAN has been added to the HQ NORAD CPXs (1.4.1.2.). Overall Field Training Exercise (FTX) design planning has been updated (para 3.3.). The OPR for Search and Rescue (SAR) requests has been updated (para 3.3.4.). Post-exercise reports and Trend Analysis Program (TAP) documents have been deleted. The Air Defense Operations Center (ADOC) has been renamed the NORAD Battle Management Center (NBMC). Exercise route criteria have been clarified (para A5.4.).

The Exercise Planning Schedule has been added (**Attachment 2**). NORAD Form 41, **Altitude Reservation Flight Plan**, and NORAD Form 42, **Altitude Reservation Flight Plan (Continuation)**, are no longer required and are obsolete. A bar (|) indicates a revision from the previous edition.

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Chapter 1

GENERAL

1.1. References. See Attachment 1 for references, acronyms and terms.

1.2. Concept. The CINCNOAD Exercise Program is designed to provide joint exercises that contribute to the development and maintenance of NORAD mission readiness. It focuses exclusively on the CINC's Joint Mission Essential Tasks (JMET) and the Command's readiness to support the mission. Ten generalized objectives have been developed for use in planning to ensure a consistent focus for all NORAD exercises.

1.2.1. These objectives are as follows:

- 1.2.1.1. Exercise Integrated Tactical Warning and Attack Assessment (ITW&AA).
- 1.2.1.2. Exercise command interface with higher and lateral headquarters.
- 1.2.1.3. Exercise intelligence, logistics and personnel functions.
- 1.2.1.4. Exercise command, control and communications systems and procedures.
- 1.2.1.5. Exercise NORAD Headquarters, region and sector joint binational battle staffs.
- 1.2.1.6. Exercise crisis action planning, deployment planning and CONPLAN execution.
- 1.2.1.7. Exercise regeneration, NBC and battle staff support operations and test concepts.
- 1.2.1.8. Exercise contingency operations (including Cruise Missile Defense).
- 1.2.1.9. Exercise air sovereignty and air defense missions.
- 1.2.1.10. Exercise the counterdrug mission.

1.2.2. In striving to meet these objectives, NORAD has developed an exercise program that involves all components and depends on extensive participation by supporting commands. This participation reinforces the joint-combined/cooperative nature of NORAD exercises. CINCNOAD's exercise program also reinforces the unique binational nature of the NORAD mission with United States (US) and Canadian personnel working together and participating at all levels.

1.2.2.1. The two main exercise program components are Command Post Exercises (CPX) and Field Training Exercises (FTX). The CINCNOAD CPX Program exercises NORAD's C4 structure as an adjunct of the US and Canadian national command architectures. The CPX exercises incorporate simulation events to allow ITW&AA and generate crisis and decision-making situations which blend in CONPLAN/OPORD execution. The CINCNOAD FTX program focuses on the air sovereignty and air defense missions. It operationally tests detection and prosecution of the air-breathing threat, connectivity with battle staffs and the deployment and employment capabilities of NORAD-assigned and-gained units. Specific exercise objectives are developed for each exercise to ensure exercise participants are aware of the exercise focus. These objectives ensure that the maximum benefit is gained from the exercise experience. However, exercise objectives are not permitted to interfere with real-world operations in support of CINCNOAD-assigned missions.

1.2.2.2. The prime goal of the NORAD exercise program is to maintain NORAD mission readiness. The exercise program is based upon CJCS policy for implementing the Joint Training System (JTS). Emphasis is placed upon joint training and training as we will fight. With this in mind, two overriding policies impact the CINCNOAD Exercise Program: security and safety.

1.2.2.2.1. Security. All exercise activity must comply with operational security policy provided in AFI 10-1101, *Operations Security*, and communications security (COMSEC) are of special concern during all phases of an exercise because improper security practices could compromise the war plans exercised. The following references define OPSEC procedures:

1.2.2.2.1.1. AFI 31-401, *Managing the Information Security Program*, gives general guidance on the classification of exercise material.

1.2.2.2.1.2. Allied Communications Publication (ACP) 121, United States (US) supplement 1(F) explains the use of automatic secure voice communication and the restrictions on its use by other than US nationals.

1.2.2.2.1.3. DOD 5400.7-R, *DOD Freedom of Information Act Program*, addresses US requirements for complying with the US Freedom of Information Act (FOIA). US military activities should refer to applicable service publications to ensure compliance with this DOD directive as it pertains to the FOIA Program and application of "For Official Use Only (FOUO)" markings.

1.2.2.2.2. Safety. During peacetime operations, adherence to sound safety practices takes precedence in the decision processes required to execute assigned missions. Mission safety ultimately rests with each individual involved. Anyone detecting an unsafe condition will initiate corrective action immediately. If any activity is ended for safety, resultant training losses or unfulfilled commitments are acceptable. For more specific guidance on safety, participants refer to their command's safety publications and to other appropriate US and Canadian safety publications, as applicable. Under no circumstance will exercise objectives take precedence over a commander's judgment in regard to safety.

1.2.2.3. CINCNOAD, as commander of a binational command, is responsible to both the Canadian Chief of Defence Staff (CDS) and the Chairman of the Joint Chiefs of Staff (CJCS) for exercise requirements through the Canada/US Basic Security Plan. To fulfill these requirements, the HQ NORAD staff conducts an exercise program which is reflected in the Headquarters NORAD Joint Training Plan (JTP). This document, produced annually, details the approved 3-year CINCNOAD Exercise Program and the proposed Exercise Schedule (EXSCHED). It is produced in response to taskings from both countries and serves as the basis for CINCNOAD-sponsored exercises.

1.2.2.4. The CINCNOAD Exercise Program includes CJCS, CINCNOAD, and region exercises.

1.2.2.4.1. CJCS Exercises. The CJCS exercise program fulfills US statutory training requirements levied on the CJCS and trains commanders and staffs in joint and combined exercises. The major components of the program are the annual CJCS CPXs, the Washington DC area PROMPT RESPONSE mini-CPX and No-notice Interoperability Exercises (NIEX). NIEXs are CPXs designed to test the interoperability between the US Unified and Specified Commands. One command is normally the focus of a NIEX as the supported command; other commands may be tasked as supporting commands. HQ NORAD may be tasked in either role.

During all CJCS-sponsored exercises, the US Joint Staff assumes the primary responsibility for exercise planning, execution and assessment.

1.2.2.4.1.1. HQ NORAD actively participates in the CJCS Joint Training Program to enable NORAD to exercise its connectivity and interoperability with other commands that support the NORAD mission.

1.2.2.4.2. CINCNOAD Exercises. As stated in paragraph 1.2.2.1, there are two types of CINCNOAD-sponsored exercises: CPXs and FTXs (see **Attachment 2** for CPX and FTX planning cycles).

1.2.2.4.2.1. CPX. CPXs are designed as battle staff exercises. They use simulated events and techniques to generate crisis and decision-making situations for exercise participants as the primary means to achieve exercise objectives. The design and development phase starts 13 months before exercise execution and the post-exercise reporting phase extends 120 days after the exercise. The specific CPX program structure is detailed in **Chapter 2**.

1.2.2.4.2.2. FTX. FTXs employ actual aircraft sorties as the primary means to achieve exercise objectives. The HQ NORAD FTX cycle is similar to the CPX cycle; however, it is subject to the special considerations that are inherent in the use of live assets, or that may be imposed by linking with another CINC's FTX. The specific FTX program structure is detailed in **Chapter 3**.

1.2.2.4.3. NORAD Region Exercises. NORAD regions also conduct CPXs and FTXs as directed by this instruction or by region commanders. Additionally, region commanders may direct NORAD sectors to conduct CPXs or FTXs as required.

1.2.2.5. To the maximum extent possible, the CINCNOAD Exercise Program complies with management requirements of both the CDS and CJCS. However, to establish program continuity and enhance interoperability with the US Joint Staff and the US Unified Commands, HQ NORAD staffs use the management tools and practices as directed by the US Joint Staff.

1.2.2.5.1. The central management tool used in HQ NORAD exercise planning and reporting is the US Joint Staff's umbrella program for exercise-related software, the Joint Exercise Management Package (JEMP). This package includes programs entitled Joint Mission Essential Task (JMET), Exercise Scheduler (EXSCHED), Master Scenario Events List (MSEL), and Joint Universal Lessons Learned System (JULLS). These software programs are referred to throughout this instruction; a more extensive summary of the JEMP is provided in **Attachment 3**.

1.2.2.5.2. Exercise program requirements specified by the US Joint Staff, such as developing the annual CINCNOAD JTP, providing significant military exercise briefs, and reporting via the Joint After-Action Reporting System (JAARS), are considered required procedural practices for all CINCNOAD-sponsored exercises. Additional information on these programs is provided in **Attachment 3**.

1.3. Responsibilities:

1.3.1. CINCNOAD:

1.3.1.1. Approves the CINCNOAD Exercise Program.

1.3.1.2. Approves the Headquarters NORAD JTP.

1.3.1.3. Approves HQ NORAD Inspector General (IG) evaluations performed in conjunction with CINCNORAD-sponsored exercises.

1.3.1.4. Approves exercise Concept and Objectives (C&O) exercise document.

1.3.1.5. Approves region/sector Joint Mission Essential Task List (JMETL).

1.3.2. HQ NORAD-USSPACECOM IG (N-SP/IG):

1.3.2.1. Provides inputs to the NORAD Exercise Division Chief (NJ3Z) for exercise planning, as required.

1.3.2.2. Participates in HQ NORAD Exercise Planning Conferences, as required.

1.3.2.3. Coordinates inspection activities held in conjunction with, or supported by, NORAD exercises.

1.3.3. HQ NORAD Director, Combat Operations (NJ3):

1.3.3.1. Submits the Significant Military Exercise Brief (SMEB) by message to the Joint Chiefs of Staff, Joint Exercises and Training Division (J7/JETD), and provides information copy to National Defence Headquarters (NDHQ).

1.3.3.2. Recommends membership of the HQ NORAD Exercise Corrective Action Board (ECAB) for after-action reporting.

1.3.3.3. Provides guidance to NJ3Z on exercise concepts and objectives (C&O).

1.3.3.4. Approves appropriate exercise documents (such as the Exercise Specifications (EXSPEC), Controller Staff Instruction (COSIN) and Exercise Plan (EXPLAN)).

1.3.3.5. Chairs the HQ NORAD ECAB.

1.3.4. HQ NORAD Exercise Division (NJ3Z):

1.3.4.1. Publishes and maintains this instruction.

1.3.4.2. Publishes and maintains instructions as required to support the CINCNORAD Exercise Program and comply with this instruction.

1.3.4.3. Schedules, plans and conducts CINCNORAD-sponsored exercises.

1.3.4.4. Convenes CPX and FTX planning conferences, as necessary.

1.3.4.5. Convenes CINCNORAD exercise program review conferences, as required.

1.3.4.6. Coordinates and/or supports CJCS-sponsored, NORAD region-sponsored, United States Space Command (USSPACECOM)-sponsored and other outside command or agency exercises, as required.

1.3.4.7. Coordinates region, HQ NORAD staff and other resources as required for exercise support and planning.

1.3.4.8. Coordinates support from external commands and/or agencies for CINCNORAD-sponsored exercises.

- 1.3.4.9. Ensures publication of appropriate exercise documentation for CINCNORAD-sponsored exercises.
- 1.3.4.10. Publishes and maintains the CINCNORAD JMETL and Headquarters NORAD JTP.
- 1.3.4.11. Manages the CINCNORAD Exercise Analysis Program.
- 1.3.4.12. Manages the HQ NORAD Exercise Control Group (NECG) and Blue Force Simulation Cell (BFSC) for CJCS- and CINCNORAD-sponsored exercises.
- 1.3.4.13. Manages the NORAD ECAB process.
- 1.3.4.14. Ensures the CINCNORAD Exercise Program fulfills requirements established by the CDS and CJCS.
- 1.3.4.15. Manages the NORAD After-Action Reporting System (NAARS) and the NORAD Center for Lessons Learned (NCLL) (see **Chapter 4**).
- 1.3.4.16. Monitors region exercise programs.
- 1.3.4.17. Coordinates with Director for Logistics (N-SPJ4) and the NORAD regions regarding the use of US tankers to refuel Canadian Forces (CF) fighters during exercises.
- 1.3.4.18. Coordinates and validates, (through N-SPJ4), airlift requests for units supporting NORAD exercises.
- 1.3.4.19. Coordinates with the Aerospace Warning Division Chief (J3W) to provide qualified E-3 on-board exercise controllers.
- 1.3.4.20. Manages the HQ NORAD JCS exercise budget.
- 1.3.4.21. Approves HQ NORAD representation on the BFSC.

1.3.5. HQ NORAD-USSPACECOM Intelligence Directorate (N-SP/J2):

- 1.3.5.1. Develops and coordinates exercise scenarios with NJ3Z, NDHQ, CJCS, other Unified Commands and NORAD regions and sectors as required by the nature of the exercises.
- 1.3.5.2. Ensures intelligence injects utilized in support of exercise development and execution reflect current and projected real-world capabilities wherever possible to enable realistic training of NORAD personnel.
- 1.3.5.3. Coordinates national intelligence support to NORAD exercises.
- 1.3.5.4. Publishes and maintains ANNEX B to all NORAD EXPLANS.

1.3.6. NORAD Region Commanders:

- 1.3.6.1. Coordinate region CPX and FTX schedules through the NORAD Exercise Division Chief, as required, for inclusion in the CINCNORAD JTP.
- 1.3.6.2. Conduct the CINCNORAD Exercise Program in accordance with this instruction.
- 1.3.6.3. Develop and publish region/sector JMETL.
- 1.3.6.4. Publish appropriate region-sponsored exercise and/or supporting directives and ensure copies are sent to HQ NORAD/J3Z. For region-sponsored Brave Exercises this includes, as a minimum, the Announcement Message, the Exercise Specifications/Air Tasking Order and the Final Report.

1.3.6.5. Coordinate with the Exercise Division Chief regarding the use of US tankers to refuel CF fighters.

1.3.6.6. Coordinate with the Exercise Division Chief for FTX fighter augmentation, fighter deployments and target support, if required. *Note:* The Exercise Division Chief approves all deployments in support of HQ NORAD exercises.

1.3.6.7. Establish responsibilities and directives for target/FAKER monitor and positive target control team members (see Attachment 5).

1.3.6.8. Ensure trained and certified personnel are available for duties as target monitors and positive target control team members.

1.3.6.9. Ensure exercise-related documents, reports, etc, are sent to applicable agencies according to appropriate exercise directives and this instruction.

1.3.6.10. Ensure applicable Letters of Agreement (LOA) between the Federal Aviation Administration (FAA)/NAV Canada and regions/sectors are observed during the conduct of all exercises.

1.3.6.11. To preclude any exercise event being acted on as a real-world event, ensure information on all live-fly exercise events, to include Simulated Penetration of Air Defenses Exercises (SPADE), are passed to the NORAD Battle Management Center (NBMC).

1.3.6.12. Appoint appropriate region and sector personnel as trusted agents to provide technical and/or area expertise for exercise development and conduct.

1.3.7. HQ NORAD Division Chiefs. Appoint staff officers as trusted agents to provide technical expertise for exercise and MSEL development, to publish and maintain appropriate annexes to NORAD EXPLANS, to participate on the BFSC, attend exercise planning conferences and ensure representation at each meeting of the ECAB (see **Chapter 4**).

1.3.8. Supporting Commands. Provide surveillance and warning systems, target force, fighters, logistics, weapons systems support, simulation media, nuclear event scripting, coordination as required and ensure exercise-related documentation is distributed as necessary to support exercise requirements.

1.3.9. Target Force Managers (TFM). See **Attachment 4**.

1.4. Program Structure. HQ NORAD participates in exercises which are CJCS- and/or CINCNO-RAD-sponsored. HQ NORAD regions also participate in these exercises plus those which are region-sponsored. Evaluation by the HQ NORAD, 1CAD, HQ PACAF, or HQ ACC IG teams may be conducted during any CINCNO-RAD-sponsored exercise. These exercises generally involve the entire HQ NORAD system, including external command interfaces. Region-sponsored exercises involve one or more regions along with subordinate units. The following CINCNO-RAD-sponsored exercises are categorized by CPX or FTX:

1.4.1. HQ NORAD CPXs. CPXs are battle staff exercises. They use simulated events to generate crisis and decision-making situations for exercise participants as the primary means to achieve exercise objectives. The CINCNO-RAD CPX program provides the opportunity to exercise CONPLANS, procedures, concepts, etc., in an environment that permits realistic execution without real-world peacetime constraints. Specifically, CPXs provide a venue to exercise and train attack response, post-attack and reconstitution operations. There are three types of CINCNO-RAD-sponsored CPXs.

1.4.1.1. VIGILANT OVERVIEW (VO). VO is a CINCNORAD-sponsored, CJCS/CDS-approved, system-wide CPX involving HQ NORAD, NORAD regions and sectors and supporting units. This exercise involves all HQ NORAD levels of command and is designed to exercise most aspects of the NORAD mission. One VO exercise is scheduled each year and the length will vary depending on the exercise scenario and objectives.

1.4.1.2. VIGILANT GUARDIAN (VG). The VG is a VO exercise conducted in conjunction with USCINCSTRAT-sponsored GLOBAL GUARDIAN and USCINCSpace-sponsored APOLLO GUARDIAN exercises. The exercise involves all HQ NORAD levels of command and is designed to exercise most aspects of the NORAD mission. One VG is scheduled each year and the length will vary depending on the exercise scenario and objectives.

1.4.1.3. AMAZON CONDOR (AC). The AC exercise is an Internal CPX (ICPX) focusing on HQ NORAD Battle Staff and the Cheyenne Mountain Operations Center (CMOC). The exercise is designed to train newly assigned personnel and to examine the validity of procedures. One AC exercise is scheduled each year.

1.4.2. Region CPXs. Regions sponsor CPXs in order to exercise the various elements of each region's mission in support of CINCNORAD. These exercises focus on region decision making, command, control and reporting. HQ NORAD provides support as requested to the maximum extent possible. These exercises are not included in the Headquarters NORAD JTP.

1.4.3. HQ NORAD FTXs. CINCNORAD-sponsored FTXs employ actual aircraft in scenarios designed to exercise C4, CONPLANS, procedures and tactics. Scenarios will be as realistic as possible within the bounds of flight safety and the constraints of peacetime operations. FTXs are joint, binational exercises and include participating units from 1CAD, Canadian Maritime Command, HQ NORAD, NORAD regions and sectors, United States Atlantic Command (USACOM), United States Strategic Command (USSTRATCOM), United States Southern Command (USSOUTHCOM), United States Pacific Command (USPACOM), United States Transportation Command (USTRANSCOM), Air Mobility Command (AMC), Air National Guard (ANG), US Air Force, US Army, US Navy, US Marine Corps, Civil Air Patrol, US Customs Service and the US Coast Guard. There are two types of CINCNORAD-sponsored FTXs.

1.4.3.1. AMALGAM WARRIOR (AW). A CINCNORAD-sponsored, CJCS-approved and -funded, large-scale live-fly exercise normally involving two or more NORAD regions. They are designed to exercise air sovereignty and air defense. Emphasis is placed on realistic target flow employing electronic warfare and other penetration tactics. Functions exercised include, but are not limited to, surveillance, detection, tracking, interception, employing rules of engagement, force generation, counterdrug operations, attack warning, attack assessment, counter cruise missile operations and CONPLAN implementation. Two AW exercises are scheduled each year.

1.4.3.2. AMALGAM (FABRIC, FALCON, FENCING) BRAVE (AFB). AMALGAM BRAVE exercises are CINCNORAD-sponsored, region-directed FTXs that take place in the Canadian, CONUS and Alaskan NORAD regions, respectively. One of the primary purposes of these exercises is to fulfill a CINCNORAD requirement to periodically deploy fighter assets and conduct air operations from the Region's Deployed Operating Bases (DOB), flexible alert sites and Forward Operating Locations (FOL). The specific NORAD region determines the conduct of each exercise with inputs, guidance and assistance provided by HQ NORAD. There are six AFB exercises scheduled each year.

1.4.4. Region FTXs. These FTXs, such as SPADEs, LIBELs and KEYNOTEs are conducted at a scope and frequency as determined by region commanders.

1.5. Exercise Scheduling:

1.5.1. Headquarters NORAD JTP. The HQ NORAD Exercise Division Chief is responsible for publishing the Headquarters NORAD JTP. The JTP is due to CJCS/J7-JETD annually by 15 March. The JTP includes all HQ NORAD CPXs and HQ NORAD/region FTXs. Every August the regions submit their updates to the JTP either by message or at a CINCNORAD Exercise Conference. This document serves the following purposes:

1.5.1.1. It provides CJCS and CINCNORAD guidance for planning, conducting and assessing joint, multinational training.

1.5.1.2. It functions primarily as a planning guide to ensure continuity for CINCNORAD-sponsored CPXs and FTXs.

1.5.1.3. It provides a clear link between the US Joint Staff and HQ NORAD analysis programs to assist in post exercise reporting (refer to paragraph 4.5.).

1.5.1.4. It provides CINCNORAD exercise support requirements to the US Joint Staff and supporting commands.

1.5.1.5. It serves as the CINCNORAD input to the CJCS JTMS which JCS uses in the Program Objective Memorandum (POM) process to allocate airlift funding levels for the CINCNORAD Exercise Program.

1.5.1.6. It serves as a mechanism for HQ NORAD and region senior staff members to provide inputs to the CINCNORAD Exercise Program.

1.5.1.7. It serves as an in-briefing guide for newly assigned NORAD personnel.

1.5.2. EXSCHEd. In addition to the yearly JTP submissions to the CJCS, quarterly exercise updates are provided to CJCS/J7-JETD by the HQ NORAD Exercise Division Chief. The updates are made through the EXSCHEd software and cover the next 12 month EXSCHEd.

1.5.3. NORAD Regions/Sector EXSCHEds. Quarterly, each NORAD region will send the HQ NORAD Exercise Division a schedule of all planned region/sector exercises for the next year. The regions must ensure the schedule reaches the Exercise Division Chief by the last working day of March, June, September and December. Information copies should be sent to the Current Operations Division Chief (CMOC/J3OC), HQ NORAD/IG, 1st Canadian Air Division NORAD Region Headquarters Exercise Division (1CAD/EX COORD), HQ Air Combat Command IG (HQ ACC/IG), the HQ ACC Director for Operational Plans and Support (HQ ACC/DOX), the HQ ACC/DOY, HQ Pacific Air Forces Director for Operational Plans and Support (HQ PACAF/DOX) and the Air National Guard Bureau (ANGB). Regions should send the information to HQ NORAD/J3ZP&A.

1.5.4. Priority of Exercise Activities. CINCNORAD fully supports the CJCS Exercise Program. Priorities within the CINCNORAD Exercise Program are listed in the EXSCHEd, located in the Headquarters NORAD JTP. Generally, CINCNORAD-sponsored VO/VG and AW exercises have priority of effort and resources over region-sponsored CPXs/FTXs unless circumstances such as exercise cancellations, opportunities to align exercises with exercises of other commands, etc., suggest realignment of priorities.

1.6. Exercise Documents. The following summarizes major documentation requirements for CINCNO-RAD-sponsored exercises. Though region requirements may vary, information copies of documentation and correspondence associated with region-sponsored exercises must be sent to HQ NORAD/J3Z.

1.6.1. Announcement. The announcement message is the first formal HQ NORAD document associated with an exercise. This document provides addressees a basic description of the exercise, the exercise dates and any initial taskings. It also requests inputs for the scenario as well as objectives which will be used to focus the exercise and which will be included in the C&O. It is sent by Automatic Digital Network (AUTODIN) to all players and controllers approximately 11 months before the start of exercise (STARTEX) for CJCS- or CINCNO-RAD-sponsored exercises.

1.6.2. Concept and Objectives (C&O). The C&O background paper summarizes the exercise definition, scenario and exercise and analysis objectives. The HQ NORAD Exercise Division Chief sends this document to CINCNO-RAD for approval approximately 10.5 months prior to STARTEX for CINCNO-RAD-sponsored AW and VO/VG exercises. *Note:* For CJCS exercises, the time the document is sent varies according to US Joint Staff coordination requirements.

1.6.3. Exercise Specifications (EXSPECS). The HQ NORAD Exercise Division Chief publishes EXSPECS approximately 9 months prior to CPX STARTEX and 6 months prior to FTX STARTEX. EXSPECS will be published by HQ NORAD/J3Z for all CINCNO-RAD-sponsored CPXs and AW FTXs. The need for publication of EXSPECS for region-directed FTXs will be determined by the regions. This is a "Control Eyes Only" document which provides specific taskings for exercise design and conduct. The EXSPECS include information from the C&O, as approved by CINCNO-RAD, to enable exercise designers at all levels of command to develop supporting objectives and specific events. The EXSPECS also contain a complete exercise timeline and a comprehensive list of suspense dates for all taskings. Since the EXSPECS task all directors to support the exercise, HQ NORAD/J3Z will normally approve the EXSPECS.

1.6.4. Exercise Plan (EXPLAN). The EXPLAN provides information which players and controllers will need in order to participate in the exercise; hence, it requires widest possible dissemination. It contains telephone numbers for exercise points of contact (POC) and other information peculiar to the exercise, as well as formats and requirements for post-exercise reporting. For CINCNO-RAD-sponsored CPXs and AW FTXs, the HQ NORAD Exercise Division Chief publishes the initial draft of each ANNEX and assigns an OPR. The final document (NORAD produced) will be published and distributed after HQ NORAD/J3Z approval, approximately 2 months prior to STARTEX. The EXPLAN will also be available on the Global Command and Control System (GCCS) NORAD Homepage.

1.6.5. Control Staff Instructions (COSIN). The COSIN is a "Control Eyes Only" document which contains information to assist in exercise control. The COSIN consists of an Index Report of all events, and a MAJCOM Report of Levels I, II, and III events. This document is approved by HQ NORAD/J3Z and published for distribution approximately 45 days prior to STARTEX.

1.6.5.1. HQ NORAD/J3Z and the NORAD regions maintain appropriate instructions to describe the MSEL development process.

1.6.5.2. Each MSEL item must be identified as to its "Level" of play. The author of any event impacting CMOC operations must be deconflicted by the author with CMOC/J3T.

1.6.5.2.1. Level I -- Events that should generate interactive play between CJCS/National Defence HQ (NDHQ) and collateral or higher HQ or agencies of the US and Canada.

1.6.5.2.2. Level II -- Events that generate interactive play between HQ NORAD and collateral HQ or agencies.

1.6.5.2.3. Level III -- Events that are intended for play at the HQ NORAD level.

1.6.5.2.4. Level IV -- Events that generate interactive play between NORAD subordinate HQ or agencies. *Note:* The BFSC normally simulates collateral and higher HQ (see **Chapter 2**).

1.6.6. Target/Faker Aircrew Instruction Booklet. This "Control Eyes Only" document contains detailed information on faker aircraft route, scenario, electronic countermeasures (ECM), tactics and general aircrew procedures during an FTX. This document is distributed approximately 30 days prior to STARTEX to regions, sectors, AWACS, target/faker aircrews, ATC agencies and any other "Trusted Agent" personnel involved in the exercise.

1.7. Safeguarding Exercise Information and Material. Commanders of participating agencies and HQ NORAD division chiefs appoint "Exercise Controllers" or "Trusted Agents" to safeguard "Control Eyes Only" and "Trusted Agent" information and material to prevent disclosure to unauthorized personnel. Exercise controllers and trusted agents serve as a focal point to receive and transmit "Control Eyes Only" or "Trusted Agent" information and material.

Chapter 2

COMMAND POST EXERCISES (CPX)

2.1. General. CPX sponsorship and participation gives HQ NORAD an opportunity to exercise Concept Plans (CONPLAN), Operations Plans (OPLAN), Operations Orders (OPORD), operations procedures and concepts in an environment that permits realistic execution without regard to peacetime and real-world constraints such as lack of resources, flight safety considerations and other actions that could not normally be taken in a peacetime, live environment. The HQ NORAD CPX program is multifaceted; it involves the development and execution of exercises, post-exercise analysis and determination of corrective action mechanisms. The primary goal of HQ NORAD CPXs is to assist CINCNO-RAD and the battle staff in maintaining a high level of operational readiness in support of peace and wartime missions, improving the overall capability of the Command.

2.2. Participants. During CJCS-sponsored CPXs, global defense agencies and commands participate according to the events planned for execution. During CINCNO-RAD-sponsored CPXs, normal exercise participants can include HQ NORAD, USSPACECOM, HQ Air Force Space Command (AFSPC), ANR, CANR and CONR. US Transportation Command (USTRANSCOM) (including Air Mobility Command (AMC) and Military Traffic Management Command (MTMC), ACC, 552d Air Control Wing (ACW) and other commands or agencies (such as, US Customs Service, US Coast Guard (USCG), etc.) may augment these players to meet specific objectives. The BFSC (see paragraph 2.4.3.) participates during CINCNO-RAD-sponsored CPXs to simulate lateral and higher HQ, commands, or agencies not participating in the exercise.

2.3. Planning Guidance:

2.3.1. For CJCS- and CINCNO-RAD-sponsored CPXs, the planning schedule in **Attachment 2** is used to the maximum extent possible.

2.3.2. Whenever possible, CINCNO-RAD-sponsored CPXs include events which exercise the following:

2.3.2.1. CINCNO-RAD deployment plans.

2.3.2.2. Canadian and US air sovereignty.

2.3.2.3. Integrated Tactical Warning/Attack Assessment (ITW/AA). *Note:* This area includes atmospheric threat warning and missile warning for an integrated assessment. Although space and support operations are not specifically included (HQ USSPACECOM missions), space launches are used in exercises to provide additional opportunities to practice ITW/AA procedures.

2.3.2.4. Counterdrug operations.

2.3.2.5. Air contingency operations.

2.3.2.6. Air defense.

2.3.2.7. CONPLANS and/or OPORDs.

2.3.2.8. Aerospace capabilities and interaction.

2.3.2.9. Command interface with HQ NORAD, HQ USSPACECOM, NORAD regions, HQ AFSPC, HQ ACC and other higher and lateral HQ (interoperability).

2.3.2.10. Command, Control, Communications and Intelligence (C3I).

2.3.2.11. Battle staff support operations.

2.3.2.12. Intelligence.

2.3.2.13. Regeneration.

2.3.2.14. Logistics support of HQ NORAD force development and employment.

2.3.3. Any subordinate unit or agency may conduct local performance exercises concurrently during the CPX liability period on a noninterference basis when scenarios are compatible. The unit or agency-scripted inputs are handled independently of HQ NORAD inputs and are not sent to higher HQ.

2.3.4. HQ NORAD/J3Z is the focal point for the design of CINCNORAD-sponsored CPXs. This requires that the Exercise Division Chief be the prime interface with all commands and agencies (both military and civilian) which plan to participate in the exercise. In the design process, the announcement message solicits requirements, objectives, constraints and desires of participating organizations. These inputs are used to balance and formulate the overall exercise concept and scenario. From these elements, the C&O background paper is developed.

2.3.4.1. HQ NORAD/J3Z-sponsored CPX Planning Conferences provide the forum for HQ NORAD and region exercise planners to design events which support the concept, objectives and scenario. Participation at these conferences is determined by the Exercise Division Chief.

2.3.4.2. As the exercise design cycle progresses, events are refined and incorporated into a MSEL (the basis of the COSIN). MSELs must be validated by region/unit commanders and/or HQ NORAD directors who have responsibility for the event to ensure minimal impact on operational systems. Once events are validated, the COSIN is finalized and published, completing the exercise design process.

2.4. Execution and Control:

2.4.1. Participation. Players react to simulated data or scripted inputs and interact with other exercise participants. They use current operating procedures and special instructions to respond to inputs. Where procedures or real-world activities do not permit players to actually perform the necessary actions, personnel simulate taking the required actions.

2.4.2. Control. Exercises are controlled by two key means: the COSIN and the NORAD Exercise Control Group (NECG). The NECG is the single POC to coordinate and execute exercise events. The NECG interacts with each region's exercise control cell to provide the required interface and continuity. The NECG and "Trusted Agents" will review the COSIN prior to STARTEX to ensure there is an understanding of impact of the MSELs on real-world events that may occur during the exercise. The NECG is composed of a HQ NORAD exercise director, senior controllers, an Intelligence Red Force Simulation Cell (RFSC) and the BFSC. An Information Management (IM) cell is included in the NECG to handle all IM functions.

2.4.2.1. Approximately 1 hour prior to STARTEX, the NECG convenes a teleconference to update all control cells on changes to events, procedures, or telephone numbers to provide supplementary instructions. This affords each region an opportunity to identify problem areas or additional support requirements before STARTEX.

2.4.2.2. The NECG Exercise Director is the final authority for adding, modifying, or deleting exercise events. A single authority is provided in order to avoid conflicting events and the surfacing of events to higher levels than originally intended, without consideration of the potential impacts.

2.4.3. Blue Force Simulation Cell (BFSC). The BFSC is composed primarily of field grade officers from HQ NORAD, HQ USSPACECOM, the NORAD regions and US Reserve Forces. The BFSC Chief is an IMA reservist who is responsible to HQ NORAD/J3Z for the organization and training of personnel for the BFSC and is also responsible for inputs to the exercise.

2.4.3.1. Organization. During exercises, the BFSC works directly for the Exercise Director through the Exercise Senior Controller.

2.4.3.2. Role. The NORAD BFSC is formed for all CPXs and plays the role of all organizations and agencies not actually participating in the exercise. As HQ NORAD exercise participants query nonparticipating agencies, such as NDHQ, CJCS, etc., for information, the BFSC responds as SIM NDHQ, SIM CJCS, etc. The BFSC also injects events during teleconferences as representatives of simulated agencies.

2.4.3.3. Participants. The number of people and the specialties required for the BFSC may vary from exercise to exercise, depending on the scope and scenario. The HQ NORAD/J3Z determines manning requirements and requests support, by memorandum, to the NORAD directors and division chiefs who provide experienced personnel to support the BFSC. As the personnel assigned to the BFSC affect all aspects of exercise execution, it is essential that division chiefs assign qualified personnel and respond, in writing, to the BFSC Chief, through HQ NORAD/J3, if they are unable to support their BFSC tasking. The BFSC for the AC and VO exercises are essentially the same, as listed in **Table 2.1**. The AC exercises require additional regional representation on the BFSC.

Table 2.1. Manning Requirements for AC and VO Exercises.

Position*	Experience	OPR
NCA/CJCS	BFSC Chief(s) (0-6)	As assigned
COMACC/U&S CINCs	Air Defense Operations/NO-RAD Plans	HQ NORAD/J3O/J5P & CMOC/J3S
NDHQ/1 CAD/MARCOM/Land Forces Command	Canadian Operations	Canadian Officer, as assigned
CINTRANS/All Logistics	Logistics	HQ NORAD/J4X
All AWACS	AWACS	HQ NORAD/J3W
NMCC/ANMCC/NEACP (DDO)	NCC/NBMC Operations	CMOC/J3O/J3C/J3S/J3T
Combined/National Intelligence DIA/NSA	Intelligence	HQ NORAD-USSPACECOM/J2
DEA/Customs/All CD Agencies	Counterdrug	HQ NORAD/J3OD
*Note: Two persons required for each position to work 12-hour shifts.		

2.4.3.4. Training. The BFSC Chief schedules training, as required, to prepare BFSC team members to participate in ACs and VOs.

2.5. Exercise Briefing. Approximately 2 weeks before CJCS or CINCNORAD-sponsored CPXs, HQ NORAD/J3Z produces a briefing for presentation within HQ NORAD. This briefing, referred to as the "Players Briefing," is organized to provide exercise players essential information for STARTEX. Attendance is mandatory for all exercise participants.

Chapter 3

FIELD TRAINING EXERCISES (FTX)

3.1. General. CINCNOAD-sponsored FTXs use actual aircraft sorties to exercise plans, procedures, tactics and connectivity within NORAD and other commands and agencies.

3.2. Participants. During CINCNOAD-sponsored FTXs, normal exercise participants include HQ NORAD, HQ AMC, ANR, CANR, CONR, HQ ACC, US Air National Guard (ANG), Land Forces Command, MARCOM, US Navy (USN)/USN Reserves (USNR), US Marine Corps (USMC)/USMC Reserves (USMCR), US Army (USA)/US Army Reserves (USAR), US Unified and Specified Commands and other apportioned forces. These commands and agencies may supply resources to support FTX activities. These resources include target forces, surveillance assets, interceptor forces and support forces. The FTX sponsor coordinates directly with target force providers for assets.

3.2.1. USACOM. In response to HQ NORAD requests (IAW HQ NORAD JTP) USACOM tasks HQ ACC Deputy Chief of Staff for Operations (HQ ACC/DO), who in turn tasks Numbered Air Forces (NAF) for aircraft support. HQ ACC NAFs task subordinate units and inform concerned agencies. HQ ACC/DOX tasks target forces and HQ ACC augmentation fighter aircraft required for CINCNOAD-sponsored FTXs.

3.2.2. ANG. At the request of the FTX sponsor, the ANG Support Center, Director for Exercises and Deployments (ANG/DOX), tasks ANG target force and augmentation fighter aircraft.

3.2.3. 1st Canadian Air Division (1CAD). At the request of the FTX sponsor, requests will be coordinated by 1CAD/A3 EXCOORD and 1CAD A3 TASK tasks Canadian target forces and fighter aircraft.

3.2.4. USA, USN and USMC (including USAR, USNR and USMCR). The FTX sponsor coordinates with appropriate USA, USN and USMC HQ for resource support, as required.

3.2.5. Other Commands and Agencies. The FTX sponsor coordinates requests for FTX support from other commands and agencies (such as US Customs Service, etc.) as required to support specific exercise objectives.

3.3. Planning Guidance. In general, FTX exercise designers plan scenarios based on perceived threats to North America. The exercise designers create problems and provide HQ NORAD, region battle staffs, the C4 and air defense coordination with which to conduct operations. FTX planning requires extensive coordination among many organizations to ensure that all exercise objectives, guidance and directions are thoroughly understood by all participants. The FTX planning phase includes establishing exercise dates, developing exercise and analysis objectives, scheduling target, fighter, E-3, ADA and electronic combat resources, developing intelligence scenarios, determining deployments (including all support requirements for flying activities), coordinating ECM/chaff activity, scheduling airspace, and coordinating Altitude Reservation (ALTRV) and other ATC support. All FTX planning considers requirements levied in the references listed in **Attachment 1**. The planning considerations described in the following paragraphs require special attention.

3.3.1. Target Force Planning. The target force is normally comprised of a variety of aircraft from several commands. For CINCNOAD-sponsored FTXs, the planned target forces are identified in the CJCS JTP and CDS Direction to commanders documents. The forces available are refined during

the planning cycle for each FTX. For region-directed exercises, target force requirements are identified by the region. Target force planning is a multistage process which includes identifying and scheduling target resources, designing target routes (tracks), identifying ALTRV requirements and planning for positive target control (PTC). In addition to guidance in this chapter, units assigned as target forces should refer to **Attachment 4** for extensive information on participation in a NORAD FTX. Attachments 4 through 8 contain additional target force planning considerations.

3.3.1.1. For CINCNORAD-sponsored AWs, the HQ NORAD Exercise Division presents the designed tracks and exercise airspace at a final planning conference with FAA/NAV Canada for endorsement and approval.

3.3.1.2. Exercise route planning for target aircraft includes planning for both ALTRVs and non-ALTRV usage. ALTRVs must be approved by the FAA Central Altitude Reservation Function (CARF) for US airspace, or by the NAV CANADA Airspace Reservation Unit (ARU) for Canadian airspace. ALTRV procedures are normally required in Canada unless target tracks are contained in a military flying area or stationary ALTRV. ALTRVs are planned to ensure desired departures, enroute altitudes, obtain recoveries and to increase the probability of meeting exercise requirements. Terms, definitions and abbreviations associated with ALTRVs are contained in FFA Handbook 7110.83, Flight Information Publications, and TC/DND Operations Agreement for Scramble, Intercept and Recovery references. Additional ALTRV information is contained in paragraph **A4.2.** and paragraph **A5.2.**

3.3.1.3. Route Information Packages. HQ NORAD/J3Z and region/sector exercise planning staffs will prepare and publish complete route information packages for participating FTX target force units. Completed packages are to be sent to these units as far in advance of the exercise as possible but no less than 14 days prior to the exercise employment date. Route packages must contain all information necessary for the target force coordinators and aircrews to understand and brief their portions of the exercise. In addition, these packages will be provided to all concerned agencies such as faker monitor teams, FAA/NAV CANADA facilities, etc. A complete listing of a typical package contents is at **Attachment 7.**

3.3.2. E-3 Planning. HQ NORAD/J3W, as the HQ NORAD Exercise Division Chief's agent, schedules and allocates E-3 support for CINCNORAD-sponsored exercises. Regions send requests for support to HQ NORAD/J3Z with an information copy to HQ NORAD/J3W. E-3 orbits are planned by the FTX sponsor and coordinated with the affected FAA and NAV Canada facilities.

3.3.3. Air Refueling Support. For CINCNORAD-sponsored AWs, HQ 1AF/IGXL and HQ NORAD/J3Z coordinate requests for air refueling support with HQ AMC. For region-sponsored and directed FTXs, regions normally coordinate air refueling support requests directly with the air refueling provider. CANR requests for US air refueling support are sent through HQ NORAD/J3Z. Air refueling orbits are planned by the FTX sponsor and coordinated in the same manner as E-3 orbits.

3.3.4. Search and Rescue (SAR) Support. For FTXs, SAR support will be requested by the appropriate region. The following offices are POCs for SAR support for their respective regions: HQ 1AF/IGXL (CONUS), 611AOG/DOXL (ANR) and 1CAD/A3 EXCOORD (CANR). In the event that resources are unavailable, requests for support are made through HQ AMC/DOO.

3.3.5. Airspace Support. HQ NORAD/J3Z and/or the NORAD regions obtain approval for utilizing or traversing special use airspace, ATC assigned airspace (to include stationary ALTRVs), air refueling tracks and military training routes (MTR) from controlling or scheduling agencies, as required.

Submit airspace requests as early in the FTX planning cycle as possible to allow for route adjustment or cancellation should a request be denied. FAA/NAV Canada approval of an ALTRV does not authorize the utilization or traversing of these airspaces.

3.3.5.1. For CINCNORAD-sponsored AWs, HQ NORAD/J3ZD will normally obtain approval for all stationary ALTRVs, air refueling tracks and MTRs. A separate request for restricted areas, warning areas, MOAs and ATCAAs will be forwarded separately to the appropriate region/sector airspace manager or exercise branch at least 45 days prior to exercise play. Regions/sectors obtain approval from the controlling or scheduling agency for all participating exercise aircraft to traverse these US and Canadian airspaces.

3.3.5.2. For region-sponsored Braves, region/sector airspace managers or exercise branches obtain all necessary airspace to conduct the exercise. HQ NORAD/J3Z will provide staff assistance if required or requested.

3.3.6. ECM Activity. HQ NORAD/J3Z or the directing NORAD region is responsible for obtaining required clearances for ECM activity. All ECM activity requires notification and clearance according to AFR 55-44, *Performing Electronic Countermeasures in the United States and Canada*. Plan ECM activity only against military communications or sensors which are exercise participants. Send an ECM notification (for nonrestricted frequencies) and ECM/chaff (for restricted frequencies) request message to Air Force Frequency Management (AFFMA ARLINGTON VA/SCT 11) and/or NDHQ Frequency Management (NDHQ OTTAWA ON CAN/DECSS 5-3) at least 60 days prior to STARTEX. Info HQ FAA and FAA Regional Spectrum Management Offices, as well as any affected ATC and airspace agencies. HQ NORAD/J3Z or the directing NORAD region provides ECM instructions to appropriate target forces NLT 14 days prior to the exercise. During the exercise, aircraft conducting ECM activity monitor assigned target and/or safety monitor frequencies for "Stop Buzzer" and "Stop Stream" requests. Failure to respond to these requests may jeopardize flight safety.

3.3.7. Supersonic Activity. Supersonic planning and execution must comply with national directives.

3.3.8. Deployment Planning. Units requiring airlift must request support through HQ NORAD/J4X NLT 70 days prior to the deployment date. HQ NORAD/J4X will validate the request and coordinate the Time-Phased Force and Deployment Data (TPFDD) with USTRANSCOM NLT 60 days prior to the deployment. The Exercise Division Chief is responsible for oversight and JCS budgeting of the program.

3.3.9. Counterdrug (CD) Exercises. HQ NORAD, region and sector exercise designers will normally incorporate counterdrug scenarios in each exercise, i.e., Corner Back Exercise, to exercise NORAD detection and monitoring capabilities and interface with commands and agencies involved in the CD effort.

3.4. Execution and Control. During exercise execution, all exercise participants comply with provisions contained in appropriate EXPLANS/CONPLANS, OPORDs, ATOs and LOAs; strictly observe guidelines concerning ALTRV, special use airspace, MTR and air refueling tracks, etc. Each participating agency designates individuals as exercise controllers to monitor the general conduct of the exercise and provide inputs as required to manage the flow of the exercise. The following describes special requirements for the execution and control of HQ NORAD exercises:

3.4.1. Positive Target Control (PTC). HQ NORAD's PTC system provides control and monitoring of target force aircraft during exercises to ensure the safe and efficient use of all assets participating. Exercise participants plan to use the PTC system to the maximum extent possible, consistent with exercise objectives to be met. Detailed PTC planning considerations are in **Attachment 6**.

3.4.2. Target Force Management. Controlling and monitoring of target force aircraft is the responsibility of US and Canadian air traffic control (ATC) facilities until transfer to or after transfer from the Air Defense Control Facility (ADCF) or AWACS (E-3) when operating as a Military Radar Unit (MRU). The target force monitor assumes responsibility for control and monitoring of a target aircraft and Naval assets while in exercise airspace or while on the penetration portion of a moving ALTRV in Canadian airspace.

3.4.3. Autonomous Operations. Autonomous operations occur when positive radar control is not possible or desirable for fighter operations during an exercise.

3.4.4. Aircraft Control Operations. During NORAD exercises, an E-3 may operate as an Airborne Radar Unit (ARU) or an MRU. As an ARU, the E-3 operates under the authority of a US Sector Air Operations Center (SAOC), which is an MRU if procedures have been established in letters of agreement (LOA) with ATC facilities. The E-3 also operates as an MRU according to LOAs established with FAA and requirements detailed in Special Military Operations Regulation 7610.4. When in Canada, the E-3 operates under the authority of the Canadian RAOC, or it can be an ADCF with CANR HQ approval. Both E-3s and RAOCs/SAOCs are responsible for flight safety and airspace integrity. During FTXs, use the following procedures to ensure appropriate coordination is effected between an E-3 and RAOCs/SAOCs.

3.4.4.1. When required, the RAOC/SAOC provides a Weapons Director (WD) to conduct transfer of control for interceptor aircraft between ATC facilities and the E-3 WD. The RAOC/SAOC WD coordinates procedures for transfer of control (including specific procedures for aircraft declaring emergencies) and is in constant radio contact with the E-3 senior director to relay necessary communications (including airborne and scramble orders) between the E-3 and the appropriate ATC facility.

3.4.4.2. The RAOC/SAOC faker monitor conducts an update briefing with the E-3 faker monitor before the mission starts; informs the E-3 faker monitor of target force aborts, cancellations, or deviations from planned routes; and conducts transfer of control for target aircraft between ATC facilities and the E-3 faker monitor.

3.4.4.3. The RAOC/SAOC Senior Director (SD) implements procedures to assume control of E-3 fighter resources if the E-3 is unable to perform its mission and conducts airborne or ground debriefing with the E-3 at end of exercise (ENDEX).

3.4.5. Activity Reporting. Commanders of participating units are responsible for data collection and the submission of daily exercise summaries (Quick Looks) as specified in appropriate exercise directives. Participating region commanders submit daily exercise summaries for CINCNORAD-sponsored FTXs to HQ NORAD/J3Z immediately following daily exercise activity. As a minimum, these summaries will include the following:

3.4.5.1. Number of targets scheduled and flown/not flown (if not flown, include reason).

3.4.5.2. Fighters sorties flown.

3.4.5.3. Intercepts/missed intercepts (if intercepts missed, include reason).

3.4.5.4. E-3s flown and E-3 related incidents, if any.

3.4.5.5. Other incidents, if any.

3.4.6. FTX Control Staff. HQ NORAD/J3Z or the directing NORAD region provides a control staff which includes an exercise director and exercise controllers to manage the conduct and flow of the exercise. Subordinate units and other commands and/or agencies have controllers available throughout the exercise. Exercise controllers are responsible to ensure all training objectives are met consistent with flight safety. Exercise controllers are also responsible for protecting "Control Eyes Only" documentation, such as the COSIN and Target/Faker Aircrew Instructions or SPINS. Any requests for changes to the COSIN or Target/Faker Aircrew Instructions or SPINS must be approved by the exercise director and target force manager respectively.

3.4.7. Exercise Director. The exercise director ensures the scenario and appropriate exercise resources (fighter, RAOC, SAOC, AWACS and target force aircraft) have been fully coordinated.

3.4.8. Annual FTX Planning Conference. A yearly planning conference hosted by HQ NORAD/J3Z is held to update the following fiscal year's exercises. Region representatives provide inputs that are used to plan both HQ NORAD- and region-directed exercises. In addition, the NORAD JTP is reviewed and updated to reflect decisions made in the yearly planning conference.

Chapter 4

EXERCISE ANALYSIS AND THE NORAD AFTER-ACTION REPORTING SYSTEM (NAARS)

4.1. General. Exercise analysis and the NAARS provide the mechanisms to identify problem areas concerning policies and procedures that may need revision and to identify positive attributes of current operations. Exercise analysis also identifies shortfalls in capabilities and resources which may lead to the development of new NORAD Mission Need Statements (NMNS) or be used as supporting documentation for existing NMNSs. HQ NORAD uses a multidimensional approach to analyze its exercise program. Individual exercises are analyzed through the Exercise Corrective Action Board (ECAB) process, through analysis of specific exercise objectives, and for some exercises, by a team of independent assessors who work in cooperation with the Exercise Division Chief. Exercise analysis and assessment requirements are identified in the C&O and EXPLAN. Results are contained in an exercise final report that incorporates the analysis and findings resulting from the exercise experience. To the maximum extent possible, HQ NORAD post exercise reporting complies with the provisions of the CJCS JAARS. Each region develops and maintains an aggressive exercise analysis program. *Note:* Many elements of NORAD post exercise reporting use US Joint Staff management tools and practices (see **Attachment 3**).

4.2. Exercise Analysis. The Exercise Division Chief determines analysis requirements for each CJCS or CINCNOAD sponsored exercise. Exercise analysis is derived from general exercise objectives and the CJCS Commended Training Issues (CCTI) listed in the JTP, which is directly related to the NORAD Joint Mission Essential Tasks (JMET). JMET standards are selected as analysis objectives and allocated to specific exercises in the JTP. These analysis objectives are then clearly defined and coordinated through a civilian contractor. The contractor provides a data collection plan for each analysis objective and personnel to perform the data collection. Following the end of the exercise, the civilian contractor performs the analysis for each of the exercise analysis objectives.

4.3. ECAB Process. The ECAB process is a formalized process used to identify and correct problems or potential problems identified in all CJCS or CINCNOAD sponsored exercises. Any exercise participant at any level of command may submit critique comments for ECAB review. The JULLS computer software format must be used as the medium for submission of all critique comments submitted for ECAB review. The suspense date and other requirements for submission of critique comments are contained in the EXPLAN for each exercise. An ECAB normally convenes 45 days after each exercise. HQ NORAD/J3 chairs this board and determines which agencies will be represented. The Exercise Division Chief maintains a list of required representatives. At the first meeting (ECAB 1) OPRs and management categories are assigned to each comment. At the second meeting (ECAB 2), approximately 45 days after ECAB 1, OPR action on each comment is reviewed. The composite group of items with ECAB comments are submitted to HQ NORAD/J3ZP&A for inclusion into the exercise final report. Exercise comments are categorized as Remedial Action Projects (RAP), Single Agency Item (SAI), Procedural Items (PI), Exercise Items (EI), or Noted Items (NI). See **Attachment 1** for Glossary of Terms.

4.4. Exercise Final Report. The Exercise Division Chief prepares an exercise final report for CJCS and CINCNOAD-sponsored exercises for distribution within 120 days of ENDEX. This report includes an exercise summary report, exercise critique comments addressed in the ECAB process (see paragraph 4.3.) and other information considered appropriate by the Exercise Division Chief. The exercise summary report complies with the provisions of the JAARS program. All exercise final reports are approved by the

Director, NORAD Combat Operations, before distribution. The Exercise Division Chief will provide, once completed, the NORAD Historian (HQ NORAD/HO) one copy of all exercise final reports.

4.5. NORAD Lessons Learned. This report is normally produced on a quarterly basis and published by the end of March, June, September and December. This report is based on analysis of the NORAD Center for Lessons Learned (NCLL) database. Use this report to provide direct input to ongoing exercise planning activities for near-term exercise application, the CINCNOAD JTP, CINCNOAD annual exercise program analysis and assessment reports to CJCS, OPLANs and procedures for real-world application.

4.6. CINCNOAD Joint Training Program (JTP). The JTP projects CJCS and CINCNOAD sponsored exercises for three fiscal years. It is produced annually 1 year in advance of the three fiscal years projected. Selected analysis objectives from the NORAD Lessons Learned Annual Report are included in the JTP to influence the event activity to be included in each future exercise. This document serves the seven purposes previously listed in paragraph 1.6.1.

4.7. NORAD Center for Lessons Learned (NCLL). To obtain maximum benefit from HQ NORAD's exercise experience, the Exercise Division Chief manages the NCLL by ensuring that all exercise comments submitted for HQ NORAD ECAB review are input to the NCLL database. Regions may recommend comments from region-sponsored/directed exercises for inclusion into the database. Additionally, include all HQ NORAD and region final reports submitted in the JULLS summary format in the database.

4.7.1. This program provides a research tool for improving HQ NORAD operations. Consequently, the NCLL database is available to all HQ NORAD or region personnel having the appropriate security clearance.

4.7.2. The NCLL complements the US Joint Staff's Joint Center for Lessons Learned (JCLL), which contains exercise and operations final reports and critique comments from the US Unified and Specified Commands and the US Joint Staff. The Exercise Division Chief sends appropriate HQ NORAD information for inclusion into the JCLL as required. This database provides an additional source of information for HQ NORAD researchers; however, access must be coordinated with the Exercise Division Chief.

G. KEITH McDONALD, MGen, CF
Director of Operations

Attachment 1

GLOSSARY OF REFERENCES, ABBREVIATIONS AND ACRONYMS, TERMS

References

JP 1-03, *Joint Reporting Structure General Instructions*

NI 10-8(S), *NORAD E-3 Operating Procedures (U)*

NI 10-19, *Aerospace Reporting System*

NI 10-22, *Nuclear Biological Chemical Warning and Reporting System*

NI 10-24(S), *NORAD Counterdrug Operations (U)*

AFI 10-1101, *Operations Security (OPSEC) Instructions*

NR 11-3, *Code Words, Nicknames, and Exercise Terms*

AFI 11-202V3, *General Flight Rules*

AFI 11-214, *Aircrew and Weapons Director Procedures for Air Operations*

AFI 13-201, *Air Force Airspace Management*

AFJI24-113, *Department of Defense (DOD) Common User Airlift Transportation*

AFI 31-401, *Managing the Information Security Program*

AFR 55-44, *Performing Electronic Countermeasures in the United States and Canada*

NI 10-41(S), *Wartime Safe Passage of Friendly Military Aircraft (U)*

NR 55-68(S), *NORAD Identification Friend or Foe (IFF)/Selective Identification Feature (SIF) Instructions (U)*

CFP 100, Volumes I, II, and III, *Flying Orders*

ACP 121, US Supplement 1(F), *Automatic Secure Voice Communications*

FG 2516, *Canadian Forces Fighter Group Target Forces Procedures*

CJCSI 3150.01, *Remedial Action Program*

CJCSI 3150.25, *Joint After-action Reporting System*

CJCSI 3500.01A, *Joint Training Policy, for the Armed Forces of the United States*

CJCSM 3500.03, *Joint Training Manual for the Armed Forces of the United States*

DOD 5400-7-R, *DOD Freedom of Information Act Program*

FAA Handbook 7110.65, *Air Traffic Control*

FAA Handbook 7110.83, *Oceanic Air Traffic Control Headquarters*

FAA 7610.4, *Special Military Operations*

1CAD, Exercise Plan

1CAD Flying Orders, Volume II, Book II

CDS Direction to Commanders
CJCS Joint Training Master Schedule (JTMS) (U)
Flight Information Publications
NORAD Joint Training Plan (JTP) (U)
TC Air Navigation Orders
TC Air Traffic Control Manual of Operations
TC/DND Operations Agreement for Scramble, Intercept, and Recovery (SIR)
TC/NDHQ Flight Information Publications

Abbreviations and Acronyms

1CAD—1 Canadian Air Division
AC—AMAZON CONDOR
ACC—Air Combat Command
ACC—Area Control Centre (Transport Canada [Equal to FAA ARTCC])
ACP—Allied Communications Publication
ACW—Air Control Wing
AD—Air Division
ADCF—Air Defense Control Facility
ADMIS—Aircraft Departing at (number of minutes) intervals
AFB—Air Force Base
AFI—Air Force Instruction
AFIO—Authorization for Intercept Operations
AFR—Air Force Regulation
AFSPC—Air Force Space Command
AFSPOC—Air Force Space Command Space Operations Center
ALTRV—Altitude Reservation
AMC—Air Mobility Command
ANG—Air National Guard
ANGB—Air National Guard Bureau or Base
ANGRC—Air National Guard Reserve Center
ANMCC—Alternate National Military Command Center
ANR—Alaskan NORAD Region
ARTCC—Air Route Traffic Control Center

ARU—Airborne Radar Unit
ARU—Airspace Reservation Unit (Transport Canada)
ATC—Air Traffic Control
AUTODIN—Automatic Digital Network
AUTOSEVOCOM—Automatic Secure Voice Communication
AVANA—Approval Void for Aircraft not Airborne (by ZULU time)
AW—AMALGAM WARRIOR
AWACS—Airborne Warning and Control System
BFSC—Blue Force Simulation Cell
BRL—Bomb Release Line
C & O—Concept and Objectives
CANR—Canadian NORAD Region
CARF—Central Altitude Reservation Function (FAA)
CCTI—CJSC Commended Training Issues
CD—Counterdrug
CDN—Canadian
CDS—Chief of the Defence Staff (Canada)
CF—Canadian Forces
CFB—Canadian Forces Base
CFP—Canadian Forces Publication
CFRCC—Canadian Forces Rescue Coordination Centre
CINC—Commander in Chief
CINCNORAD—Commander in Chief, North American Aerospace Defense Command
CINCSPACE—Commander in Chief, United States Space Command
CJCS—Chairman of the Joint Chiefs of Staff (United States)
CMOC—Cheyenne Mountain Operations Center
COMSEC—Communications Security
CONPLAN—Concept Plan
CONR—Continental United States NORAD Region
CONUS—Continental United States
COSIN—Control Staff Instructions
CPX—Command Post Exercise

C3—Command, Control, and Communications
DEA—Drug Enforcement Administration
DIA—Defense Intelligence Agency
DND—Department of National Defence (Canada)
DO—Deputy for Operations
DOD—Department of Defense
EAD—Exercise and Analysis Division
ECAB—Exercise Corrective Action Board
ECG—Exercise Control Group
ECM—Electronic Countermeasures
EEP—End Exercise Point
EI—Exercise Item
ENDEX—End of Exercise
ETD—Estimated Time of Departure
ETE—Estimated Time Enroute
EXPLAN—Exercise Plan
EXSCHED—Exercise Schedule
EXSPECS—Exercise Specifications
FAA—Federal Aviation Administration
FAR—Federal Aviation Regulation
FL—Flight Level
FLIP—Flight Information Publication
FOIA—Freedom of Information Act
FOUO—For Official Use Only
FTX—Field Training Exercise
GCCS—Global Command and Control System
GMT—Greenwich Mean Time (ZULU)
HHCL—H-hour Control Line
HQ—Headquarters
IAF—Initial Approach Fix
ICAO—International Civil Aviation Organization
IFR—Instrument Flight Rules

IFF/SIF—Identification Friend or Foe/Selective Identification Feature

IG—Inspector General

IM—Information Management

IMA—Individual Mobilization Augmentee

INS—Inertial Navigation System

IP—Initial Point

IP/HHCL—Initial Point/H-hour Control Line

ITW/AA—Integrated Tactical Warning/Attack Assessment

JAARS—Joint After-Action Reporting System

JCLL—Joint Center for Lessons Learned

JCS—Joint Chiefs of Staff

JEMP—Joint Exercise Management Package

JETD—Joint Exercise and Training Division

JMET—Joint Mission Essential Task

JMETL—Joint Mission Essential Task List

JTMS—Joint Training Master Schedule

JTP—Joint Training Plan

JULLS—Joint Universal Lessons Learned System

LOA—Letter of Agreement

MAJCOM—Major Command

MCM—Military Committee Memorandum

MOA—Military Operations Areas

MOBEX—Mobility Exercise

MOP—Memorandum of Policy

MRU—Military Radar Unit

MSEL—Master Scenario Events List

MTMC—Military Traffic Management Command

MTR—Military Training Route

MTU—Military Training Unit

NAARS—NORAD After-Action Reporting System

NAF—Numbered Air Force

NAOC—National Airborne Operations Center

NAVCAN—NAV Canada
NAVAID—Navigation Aid
NBMC—NORAD Battle Management Center
NCLL—NORAD Center for Lessons Learned
NDHQ—National Defence Headquarters
NEACP—National Emergency Airborne Command Post
NECG—NORAD Exercise Control Group
NEADS—Northeast Area Defense Sector
NGB—National Guard Bureau
NI—Noted Item
NI—NORAD Instruction
NIEX—No-notice Interoperability Exercise
NMCC—National Military Command Center
NMNS—NORAD Mission Needs Statement
NOPAR—No (Do not) Pass to Air Defense Radar
NORAD—North American Aerospace Defense Command
NOTAM—Notice to Airman
NR—NORAD Regulation
NUCEX—Nuclear Exercise
OCR—Office of Collateral Responsibility
OPLAN—Operations Plan
OPORD—Operations Order
OPSEC—Operations Security
OPR—Office of Primary Responsibility
PADRA—Pass to Air Defense Radar
PCA—Positive Control Area
PI—Procedural Item
POC—Point of Contact
POL—Petroleum, Oil, and Lubricants
POM—Program Memorandum Objective
PTC—Positive Target Control
RAP—Remedial Action Project

RAOC—Region Air Operations Center
RFSC—Red Force Simulation Cell
SAI—Single Agency Item
SAOC—Sector Air Operations Center
SAR—Search and Rescue
SD—Senior Director
SEADS—Southeast Area Defense Sector
SID—Standard Instrument Departure
SIM—Simulated
SIR—Scramble, Intercept, and Recovery
SITREP—Situation Report
SMEB—Significant Military Exercise Brief
SPADE—Simulated Penetration Air Defense Exercise
STARTEX—Start of Exercise
TAP—Trend Analysis Program
TAR—Trend Analysis Report
TAS—True Air Speed
TC—Transport Canada
TFC—Target Force Coordinator
TFM—Target Force Manager
TPFDD—Time-Phase Force and Deployment Data
UJTL—Universal Joint Task List
US—United States
USA—United States Army
USAR—United States Army Reserve
USACOM—United States Atlantic Command
USAF—United States Air Force
USAFR—United States Air Force Reserve
USCG—United States Coast Guard
USJCS—United States Joint Chiefs of Staff
USMC—United States Marine Corps
USMCR—United States Marine Corps Reserve

USN—United States Navy
USNR—United States Navy Reserve
USPACECOM—United States Pacific Command
USSOUTHCOM—United States Southern Command
USSPACECOM—United States Space Command
USTRANSCOM—United States Transportation Command
USSTRATCOM—United States Strategic Command
VFR—Visual Flight Rules
VG—VIGILANT GUARDIAN
VO—VIGILANT OVERVIEW
WADS—Western Air Defense Sector
WD—Weapons Director

Terms

Air Defense Control Facility (ADCF).—A military radar unit (MRU), including AWACS when fully MRU capable, primarily used for air defense. ADCF's are the only MRU's authorized to operate interceptors subject to conditions outlined in the AFIO.

Airborne Radar Unit (ARU).—An airborne radar unit used as an extension of a military radar unit during planned exercises and daily training missions.

Altitude Reservation (ALTRV).—Airspace utilization under prescribed conditions normally employed for the mass movement of aircraft or other special user requirements which cannot otherwise be accomplished.

AMALGAM (FABRIC, FALCON, FENCING) BRAVE.—CINCNORAD-sponsored, Region-directed FTXs that take place in the three NORAD Regions, Canadian, CONUS and Alaskan--respectively.

AMALGAM WARRIOR (AW).—A CINCNORAD-sponsored, CJCS-approved and -funded, large-scale exercise involving two or more NORAD Regions designed to exercise aspects of the NORAD system.

AMAZON CONDOR (AC).—HQ NORAD-sponsored ICPX exercise. (Previously called AMAZON DOLLY [AD])

Analysis Objective.—Specific task or action identified for observation in an exercise in order to identify facts and derive conclusions.

Announcement Message.—The first formal document associated with an exercise; contains the basic description of the exercise, exercise dates and initial taskings.

APOLLO GUARDIAN(AG).—A CINCUSPACECOM-sponsored CPX.

Autonomous Operations.—Aircrews operating without the benefit of external control assistance.

Blue Force Simulation Cell (BFSC).—A component of the ECG which simulates all nonparticipating

commands and units during specified CPXs.

CINCNORAD-sponsored.—An exercise where the HQ NORAD staff will assume the primary responsibility for planning, controlling and executing VO/AW exercises and will provide assistance to the Regions in the planning of BRAVE exercises.

CJCS-sponsored.—Exercise where the US Joint Staff maintains the primary responsibility for exercise planning, controlling and execution.

Closed ECAB.—An exercise comment which has been resolved either by existing plans or procedures, or by remedial action.

Command Post Exercise (CPX).—An exercise in which the forces are simulated, and involves the commander, his or her staff and designated headquarters.

CPX Target.—A simulated aircraft flying an exercise profile for the purpose of displaying a hostile aircraft track.

Concept and Objectives (C&O).—An exercise document that summarizes the exercise definition, scenario, concepts, objectives and analysis objectives.

Connectivity.—Communication lines between various points to support an operational system.

Control Eyes Only.—Exercise material that is released only to exercise project officers and exercise controllers.

Control Staff Instructions (COSIN).—A "Control Eyes Only" document used to assist in exercise control during the execution phase.

Exercise Control Group (ECG).—The group which constitutes a single POC for coordinating and monitoring events during the execution phase of the exercise. Includes the exercise director, senior controller, and the BFSC.

Exercise Corrective Action Board (ECAB).—A HQ NORAD committee, chaired by the Director of NORAD Combat Operations, that reviews exercise comments, assigns OPRs and reviews the actions taken to resolve exercise comments.

Exercise Controller.—An exercise planner who is assigned to the ECG during exercise execution.

Exercise Director.—The senior exercise controller on duty.

Exercise Plan (EXPLAN).—Document which provides the information which players and controllers need to participate in the exercise.

Exercise Sponsor.—Command and/or agency with the primary responsibility for planning, controlling and executing the exercise.

Exercise Scheduler (EXSCHED) Program.—Computer program designed to assist in scheduling, planning and costing a command's exercise program.

Exercise Specifications (EXSPECS).—"Control Eyes Only" document which provides specific taskings for exercise design and conduct.

Faker.—A target aircraft simulating a hostile during an air defense exercise while in the strike route portion of the mission.

Faker Monitor.—A military person responsible for monitoring the progress and providing safety to

target aircraft in accordance with safe intercept criteria, beginning at the IP/HHCL and terminating at the BRL/EEP or at the point of final neutralization.

Field Training Exercise (FTX).—An exercise which deploys and/or employs actual forces to achieve exercise objectives.

Final Report.—An exercise report containing a summary report and exercise critique comments, collected during the conduct of the exercise; normally published 90 days after ENDEX.

FTX Target.—An actual aircraft that flies an exercise profile for the purpose of simulating a real-world event or scenario.

Hot Wash.—An optional post exercise meeting of exercise participants convened for the purpose of critiquing exercise execution.

Integrated Tactical Warning/Attack Assessment (ITW/AA).—A determination and notification that the enemy has initiated hostilities based on an evaluation of information from all available sources.

Joint After-Action Reporting System (JAARS).—A US Joint Staff standard microcomputer reporting system used for post-exercise documentation and reporting.

Joint Center for Lessons Learned (JCLL).—A US Joint Staff-managed database which contains exercise and operations critique comments submitted for inclusion by US Unified and US Elements of Combined Commands, including NORAD.

Joint Exercise Management Package (JEMP).—Umbrella term for CJCS computer software programs designed to assist exercise planners in scheduling, planning and after-action reporting of exercises. The JEMP includes the: JULLS, MSEL, EXSCHED and JMET programs.

Joint Mission Essential Task List (JMETL).—A list of joint tasks considered essential to the accomplishment of an assigned or anticipated mission.

Joint Training Plan (JTP).—A product of the JMETL-based training requirements. JTP describes the training audience, events, objectives, support resources required and the anticipated timing of training events.

Joint Universal Lessons Learned System (JULLS).—A US Joint Staff computer software program that is used to store lessons learned on all aspects of military operations and training exercises; also a database program formatted for submitting exercise comments for the purpose of exercise critique.

KEYNOTE.—A region-coordinated, sector-sponsored FTX.

Letter of Agreement (LOA).—An agreement between two commands and/or agencies on a specific or unique operation or task.

Level I Event.—Exercise events that are designed to exercise CJCS/NDHQ and collateral or higher headquarters or agencies of the US or Canada.

Level II Event.—Exercise events that are designed to exercise CINC and collateral headquarters (agencies) and staff.

Level III Event.—Exercise events that are designed to exercise a command's headquarters staff.

Level IV Event.—Exercise events which generate interactive play between subordinate headquarters or agencies.

LIBEL.—A region-coordinated, sector-sponsored CPX.

Master Scenario Events List (MSEL).—A list of events that are programmed to be played during the execution phase of an exercise.

MSEL Program.—US/CJCS computer software program designed to assist exercise planners build a MSEL.

Military Radar Unit (MRU).—Any fixed or mobile ground-based unit under the operational jurisdiction of the military services excluding commissioned ATC facilities.

Mobility Exercise (MOBEX).—An exercise where armed forces, or a part of them, are brought to a state of readiness for war or other national emergency.

NORAD After-Action Reporting System (NAARS).—NORAD post-exercise reporting system which outlines the format, content and process to be used in developing exercise final reports.

No-notice Interoperability Exercise (NIEX).—A CJCS-sponsored exercise which is conducted on a no-notice basis involving one CINC as the supported CINC and others, as appropriate, as supporting CINCs.

NORAD Center for Lessons Learned (NCLL).—A HQ NORAD-managed database which contains all exercise critique comments reviewed and approved by the ECAB.

Noted Item (NI).—ECAB items that do not require corrective action or for which an established program exists that is already taking the corrective action.

Nuclear Exercise (NUCEX).—A CPX designed to exercise nuclear attack procedures.

Open ECAB Item.—An exercise comment that requires a specific action to correct a deficiency in existing policies, plans, or procedures.

Operations Order (OPORD).—A directive issued by a command to subordinate commanders for effecting coordinated execution of an operation.

Operations Plan (OPLAN).—A plan prepared for the conduct of a military operation, normally in a hostile environment, by the commander of a unified or specified command in response to a requirement established by the CJCS.

PTC Team.—A team of exercise controllers responsible for providing target aircraft with information and positive target control.

Procedural Item (PI).—ECAB item for which procedures existed, but were not followed and no corrective action is required.

Red Force Simulation Cell (RFSC).—A component of the ECG which simulates red forces during specified CPXs.

Region BRAVE.—A CINC NORAD-sponsored, region-directed FTX. See AMALGAM (FABRIC, FALCON, FENCING) BRAVE.

Region CPX.—A region-sponsored CPX designed to exercise the various elements of each region's mission in support of CINC NORAD.

Region-sponsored.—An exercise where the region staff assumes the primary responsibility for exercise planning, controlling and execution.

Remedial Action Project (RAP).—ECAB item identifying a deficiency or shortcoming in existing plans, procedures, resources, or forces which focuses on major problems that can be corrected through specific action.

Route Information Package.—An exercise package produced by the FTX sponsor; provided to target force aircrews.

Safety Monitor.—A military member assigned to monitor flight operations and ensure flight safety for blue forces during autonomous operations.

Single Agency Item (SAI).—An ECAB item pertaining to one agency and/or office within a specific command.

Situation Report (SITREP).—A report that contains information on the status of an operation or task for a particular time frame.

Special Use Airspace.—Airspace of defined dimensions identified by an area on the surface of the earth where activities are confined because of their nature, and/or where limitations may be imposed upon aircraft operations that are not a part of those activities. Types of special use airspace:

Alert area.—Airspace which may contain a high volume of pilot training activities or an unusual type aerial activity, neither of which is hazardous to aircraft.

Controlled Firing Areas.—Airspace wherein activities are conducted under conditions so controlled as to eliminate hazards to nonparticipating aircraft and to ensure the safety of persons and property on the ground.

Military Operations Area (MOA).—Airspace of defined vertical and lateral dimensions established outside positive control areas to separate/segregate certain military activities from IFR traffic and to identify for VFR traffic where these activities are conducted.

Prohibited Area.—Designated airspace within which the flight of aircraft is prohibited.

Restricted Area.—Airspace designated under FAR, Part 73, within which the flight of aircraft, while not wholly prohibited, is subject to restriction.

Warning Area.—Airspace that may contain hazards to non-participating aircraft in international airspace.

System-Wide.—Exercises that involve the entire NORAD aerospace defense system including external command interfaces.

Target Force Coordinator (TFC).—A qualified aircrew member at a participating unit who coordinates the overall operations of the target force in an FTX.

Target Force Manager (TFM).—A member of the FTX sponsor's staff who monitors the overall operations of the target force.

Time-Phased Force and Deployment Data (TPFDD).—The JOPES database portion of an operations plan; it contains time-phased force data, nonunit-related cargo and personnel data and movement data for the operation plan.

Trend Analysis Program (TAP).—A program designed to monitor trends in exercise design, execution and combat operations.

Trend Analysis Report (TAR).—A report based on the TAP which summarizes trends in NORAD

operations, plans and procedures, providing findings, conclusions and recommendations on each area discussed.

Trusted Agent.—An individual designated to receive and safeguard exercise planning and programming data marked "Control Eyes Only" or "Trusted Agent" and to assist with executing and monitoring the exercise scenario as required. Trusted agents will not divulge exercise "Control Eyes Only" information to unauthorized personnel.

VIGILANT GUARDIAN (VG).—HQ NORAD/USSTRATCOM-sponsored exercise.

VIGILANT OVERVIEW (VO).—A CINCNORAD-sponsored CPX.

Weapons Director (WD).—An individual responsible for directing intercepts at an Air Defense Control Facility or AWACS.

Attachment 2

EXERCISE PLANNING SCHEDULE

A2.1. Planning Cycles. Use the following planning cycles as representative guides for CJCS-sponsored CPXs and CINCNORAD-sponsored CPXs and FTXs. The timing of listed events varies according to peculiarities associated with each exercise. *Note:* "X" refers to the STARTEX.

Table A2.1. Planning Schedule.

<i>EVENT</i>	<i>CPX</i>	<i>FTX</i>
Review open RAP's from previous exercises	X-13 months	X-13 months
Review JULL's from previous 2 years exercises	X-13 months	X-13 months
Review CCTI's in JTP	X-13 months	X-13 months
Review JMETL's and develop training objectives	X-13 months	X-13 months
Review TSA's Final Reports previous 2 years	X-13 months	X-13 months
Review the TSA NCLL Report	X-13 months	X-13 months
Review the TSA Analysis summary	X-13 months	X-13 months
Review other CINC exercise objectives (as applicable)	X-13 months	X-13 months
Coordinate with AO's	X-12.5 months	X-12.5 months
Prepare draft copy of Exercise Objectives for Region/Sector review	X-12 months	X-12 months
Send Central Planning Team Meeting Letter	X-11.5 months	X-11.5 months
Send proposed exercise objectives to region/sector for comments/inputs	X-11.5 months	X-11.5 months
Send proposed exercise objectives to J Staff (HQ NORAD) for comments/inputs	X-11.5 months	X-11.5 months
Send Announcement Message	X-11 months	X-11 months
Conduct Central Planning (CPT) Team Meeting	X-11 months	N/A
Prepare draft exercise Concept & Objectives for CPT (include Region/Sector inputs)	X-11 months	N/A
Coordinate with CINC	X-11 months	N/A
C&O	X-10.5 months	N/A
Conduct Initial Exercise Planning Conference	X-10 months	X-8 months
EXSPECS	X-9 months	X-6 months
BFSC Meeting	X-8 months	N/A
Exercise MSELs Developed	X-7 months	X-4 months
Air Refueling Support	N/A	X-4 months

BFSC Support Requirements	X-6 months	N/A
USTRANSCOM Support (Airlift)	N/A	X-5 months
Requirements/Transportation/COSIN (Draft) Conference	X-5 months	X-5 months
Final COSIN/Final Airspace Conference	X-3 months	X-2/3 months
Final Airspace Request	N/A	X-2 months
EXPLAN Publication	X-2 months	X-2 months
ECM/Chaff Request	N/A	X-2 months
Significant Military Exercise Brief (SMEB)	X-47 days	X-47 days
COSIN Publication	X-45 days	X-45 days
Target/Faker Aircrew Instructions/SPINS	N/A	X-30 days
STARTEX Database/Telephone Directory	X-14 days	X-14 days
EXPLAN Change Message	X-10 days	X-10 days
EXPLAN/COSIN Change Message	X-7 days	X-7 days
Exercise Controller Brief	X-5 days	X-5 days
Exercise Safeguard Message	X-72 hours	X-72 hours
Quick look from TSA	X+5 days	X+5 days
Hot Wash	X+5-10 days	X+5-10 days
Solicit feedback from other CINCs (as req'd)	X+2 weeks	X+2 weeks
ECAB Comments due to J3Z	X+15 days	X+15 days
Review TSA's draft analysis report	X+30-45 days	X+30-45 days
ECAB 1	X+45 days	X+45 days
Preliminary Analysis Report	X+50 days	X+50 days
ECAB 1 Comments due to J3Z	X+60 days	X+60 days
ECAB 2	X+90 days	X+90 days
ECAB 2 Comments due to J3Z	X+105 days	X+105 days
Final Report	X+120 days	X+120 days
Final Report due to CJCS	X+120 days	X+120 days

Attachment 3**SUMMARY OF US JOINT STAFF EXERCISE MANAGEMENT TOOLS AND PRACTICES**

A3.1. General. Information in the following paragraphs is provided to familiarize NORAD staff personnel, exercise planners and supporting agencies with Joint Staff exercise management tools and practices. Reports generated by the use of these tools and practices is sent to NDHQ for their use or comment, as they deem necessary.

A3.2. Joint Exercise Management Package (JEMP). JEMP is an umbrella acronym for a group of database-oriented software programs which serve as management tools for exercise planning and reporting. The JEMP encompasses four software programs:

A3.2.1. Joint Mission Essential Task (JMET) Program. Use the JMET software program to standardize format elements for the JMETs of all commands participating in the CJCS JTMS. The Exercise Division Chief is the HQ NORAD OPR for developing the CINC NORAD JMET List (JMETL). Regions are encouraged to use this program for developing region JMETLs. Tasks identified within the CINC NORAD JMETL are the basis for developing exercise objectives and the CINC NORAD JTP.

A3.2.2. Exercise Scheduler (EXSCHED) Program. The EXSCHED software program provides a mechanism for commands to identify exercise support requirements to other commands and support agencies. This program allows the use of commands to standardize the overall format for outlining EXPLANs. Additionally, various report formats are available to support user requirements. Both the CINC NORAD JTP and the CJCS JTMS use the EXSCHED program. The Exercise Division Chief provides EXSCHED quarterly updates to the Joint Staff/J7-JETD (Joint Exercise and Training Division). Regions use this program for outlining their EXPLANs and for providing EXSCHED updates to HQ NORAD.

Master Scenario Events List (MSEL) Program. This software program provides exercise designers a means to organize exercise events in a standard format and to maintain a database of potential exercise events. Both HQ NORAD and region exercise designers are directed to use this program. The Exercise Division Chief determines specific requirements for standardization to meet both Joint Staff and HQ NORAD needs and to maximize the utility of this program. For each exercise, include a complete MSEL as part of the exercise COSIN.

Joint Universal Lessons Learned System (JULLS). This software program is the key to standardized formats for after-action reporting. Use it for critique comments submitted by individuals participating in an exercise and for after-action reports submitted by commanders. Commands and agencies participating in CINC NORAD- or CJCS-sponsored exercises submit critique comments in the JULLS format. Critique comments submitted in JULLS format are entered into the NCLL and JCLL databases, as appropriate.

A3.3. Joint Training Program (JTP). This program is directed by CJCS Instruction 3500.01A for Combatant Commands and defense agencies. HQ NORAD participates fully in the joint training program. This requires that HQ NORAD develop a CINC NORAD JMETL and produce an annual HQ NORAD JTP. The JMETL identifies tasks necessary for NORAD mission accomplishment and is used to focus the CINC NORAD Exercise Program. The JTP is produced as prescribed by CJCSM 3500.03. It summarizes CINC NORAD-sponsored exercises planned for the subsequent three-year period. NORAD

regions/sectors will develop Region/Sector JMETL for review and approval by CINCNORAD. The Exercise Division Chief is responsible for managing these efforts on behalf of CINCNORAD.

A3.4. Reporting Requirements. In addition to the reporting requirements discussed above, HQ NORAD also provides a SMEB for exercise approval for CINCNORAD-sponsored exercises and complies with provisions of the JAARS for after-action reporting.

A3.4.1. Significant Military Exercise Brief (SMEB). The SMEB (transmitted by AUTODIN message) is required to be at the Joint Staff 45 days prior to the critical cancellation date for each CINCNORAD-sponsored exercise. NDHQ is an information addressee on each SMEB. Each SMEB is staffed through the Joint Staff and the US National Security Council Staff for approval. This allows US national command staffs an opportunity to review the exercise concept and scenario to ensure exercise execution will not interfere with national interests. The Exercise Division Chief prepares the SMEB in the format determined by the Joint Staff. The Joint Staff informs the Exercise Division Chief via AUTODIN message when exercise execution is approved.

A3.4.2. Joint After Action Reporting System (JAARS). JAARS is used by HQ NORAD to prepare the final report. In addition to the exercise final report, which is published as a result of the HQ NORAD ECAB process, a final report is also submitted to the Joint Staff/J7-EAD (Evaluation and Analysis Division) via GCCS using the JULLS summary format. ECAB items identified by the Exercise Division Chief as having broad significance to the defense community are sent with the exercise summary. The combination of the summary JULLS and the submitted ECAB items fulfills the Joint Staff after-action reporting requirements. Each summary report is also included in the NCLL database. Regions are encouraged to use the JULLS summary report format to provide an after-action summary of each CINCNORAD-sponsored or Region-sponsored exercise. Send all such reports to HQ NORAD/J3Z for distribution within HQ NORAD and inclusion in the NCLL database.

A3.5. Joint Center for Lessons Learned (JCLL). The JCLL is comprised of a database containing critique comments from the exercise and operations conducted by commands and agencies participating in the CJCS Joint Training Program. As part of each command's (or agency's) final report, critique comments are submitted in the JULLS format to Joint Staff/J7-EAD for inclusion in the JCLL. The JCLL may be used by an authorized person performing research. The Exercise Division Chief is responsible for submitting the required reports, determining validity for access to the JCLL and coordinating access to the JCLL.

Attachment 4**TARGET FORCE GUIDELINES**

A4.1. Responsibilities. The following paragraphs summarize responsibilities for target force managers (TFM), instructions for target force aircrews and coordinators, control of target force aircraft and post-mission reporting for target aircrews. These responsibilities apply to all target force providers with the exception of HQ ACC units operating under the "SNOWTIME Agreement," and USMC/USN who are briefed on their requirements by the FTX sponsor. The terms "target" and "faker" are interchangeable when used during an air defense scenario. *Note:* The FTX sponsor normally supplements the information contained in this attachment.

A4.1.1. TFM. The TFM is a member of the FTX sponsor's staff and monitors overall operation of the target force. This individual, in close coordination with the exercise director, acts for the operations staff in recommending changes to target force employment. The TFM ensures that target aircraft usage is maximized and flight safety is never compromised. The TFM ensures target force aircrews are properly briefed and furnished necessary information pertaining to the mission.

A4.1.2. Target Force Command, Control and Management. The FTX sponsor ensures proper command, control and management of all target force aircraft through the operations staff which ensures that each Target Force Coordinator (TFC) is furnished with all exercise materials and information pertaining to aircraft for which they are responsible. Exercise planners send exercise information to the TFC 15 calendar days prior to exercise deployment. TFCs are identified by the appropriate exercise project officer by target callsign.

A4.1.3. TFC. The TFM appoints a TFC for aircraft of the same type or unit at the same staging base. This individual is qualified in the assigned aircraft and is capable of making any decisions relative to target force operations and of performing duties outlined below. The TFC handles the overall operation of the assigned target force. Target force aircrews, regardless of rank or position, respond to the directions and decisions of the TFC. If the TFC does not arrive at the staging base, the ranking aircrew member assumes these responsibilities. The TFC will:

A4.1.3.1. On arrival at the staging or deployment base, accomplish final coordination with the base project officer (if one has been assigned) or host-base agencies on mission details to include:

A4.1.3.1.1. Aircraft arrival times.

A4.1.3.1.2. Ground support equipment required.

A4.1.3.1.3. Messing, transportation, and billeting requirements.

A4.1.3.1.4. Mission departure and recovery times.

A4.1.3.1.5. Local base facilities.

A4.1.3.1.6. Aircraft turnaround requirements.

A4.1.3.1.7. Weather briefing times.

A4.1.3.2. Contact other TFCs of other aircraft types for coordination of group support and departure sequencing, weather briefing and any other actions which enhance target force operations.

A4.1.3.3. Contact the TFM as soon as possible after specified in-place time and give the status of all aircraft under the TFM's control.

A4.1.3.4. Contact the TFM 1 hour prior to takeoff and as soon as possible when an aircraft aborts and provides abort details (if all efforts to replace aborting or out-of-commission aircraft fail, the TFM specifies which route will not be flown).

A4.1.3.5. Brief all aircrews under their control as outlined in paragraph **A4.1.4.**

A4.1.3.6. Make go/no-go decision for these forces after considering all mission requirements and takeoff and/or recovery weather. *Note:* The ultimate go/no-go decision rests with the aircraft commander.

A4.1.3.7. Confirm mission go/no-go and coordinate any late Altitude Reservation (ALTRV) and target schedule changes with the TFM approximately 1 hour prior to first takeoff. The mission is canceled unless this call is completed.

A4.1.4. Target Force Aircrew Briefing. The TFC briefs target force aircrews before any exercise on all phases of the exercise to include, as applicable, the following:

A4.1.4.1. Target Mission Details:

A4.1.4.1.1. Callsigns.

A4.1.4.1.2. Routes and initial point (IP) times.

A4.1.4.1.3. Cockpit time.

A4.1.4.1.4. Start engine time.

A4.1.4.1.5. Taxi time.

A4.1.4.1.6. Takeoff and approval void for aircraft no airborne (AVANA) time.

A4.1.4.1.7. Flight plan and clearance times.

A4.1.4.1.8. Climb and cruise airspeed (TFC determines an indicated airspeed for common route and common altitude aircraft).

A4.1.4.1.9. Type of formation to be flown.

A4.1.4.1.10. Communications frequencies.

A4.1.4.1.11. Recovery bases.

A4.1.4.1.12. Abort procedures.

A4.1.4.1.13. Alternate bases.

A4.1.4.1.14. Letdowns, navigation aids (NAVAID), runway length and configuration at recovery and alternate bases and the initial approach fix (IAF) to be used at recovery and alternate bases.

A4.1.4.1.15. Notices to airmen (NOTAM).

A4.1.4.1.16. Emergency airfields.

A4.1.4.1.17. Restricted areas.

A4.1.4.1.18. Air rescue services and facilities.

A4.1.4.1.19. Survival equipment required.

A4.1.4.1.20. Exercise RECALL WORD. The recall word indicates that a situation exists which requires mission cancellation. Specific instructions are passed to the target force aircrews on an individual basis. Continue as filed until such instructions are received.

A4.1.4.1.21. Voice jamming and evasive action procedures.

A4.1.4.1.22. ECM and chaff instructions.

A4.1.4.1.23. IFF/SIF procedures.

A4.1.4.1.24. Breakaway maneuvers (according to AFI 11-214, *Aircrew and Weapons Director Procedures for Air Operations*).

A4.1.4.2. Weather Briefing:

A4.1.4.2.1. General weather synopsis for exercise routes.

A4.1.4.2.2. Forecast weather at recovery and alternate bases.

A4.1.4.2.3. Forecast weather at takeoff time.

A4.1.4.2.4. Climb winds.

A4.1.4.2.5. Winds aloft.

A4.1.4.2.6. Hazardous weather conditions. *Note:* The FTX sponsor normally supplements this information.

A4.2. Standard Target Force Aircrew Instructions. These instructions apply to all aircrew flying target force aircraft during live air defense exercises and evaluations.

A4.2.1. Target force aircrew comply with all instructions provided in their ALTRV, aircrew instructions, or target schedule.

A4.2.2. In the event the TFC is not available or one has not been appointed, each target aircraft commander contacts the TFM 1 hour prior to takeoff to confirm exercise go/no-go and ALTRV (if applicable), and target schedule approval as filed.

A4.2.3. Aircrews file individual Department of Defense (DD) Form 175, **Military Flight Plan**, International Civil Aviation Organization (ICAO) 1801, or Department of National Defence (DND) 1054, as applicable, for each route flown.

A4.2.3.1. For ALTRV, complete the Route of Flight block on DD Form 175 or DND 1054 as follows: "ALTRV Exercise Name" or route of flight as shown on the target schedule, plus IAF, transition fix, or NAVAIDs serving the destination airport as filed in the ALTRV.

A4.2.3.2. Normally, enroute times on ALTRVs are computed "no wind," based on true airspeed (TAS). Target force aircrews should enter adjusted estimated time enroute (ETE), after computing current winds, on flight plan. Aircraft must not depart before ALTRV departure time or after AVANA time. Also, aircraft departing at (number of minutes) intervals (ADMIS) for aircraft departing the same base must not be compromised.

A4.2.4. Adhere to crew rest requirements as specified by appropriate parent service regulations or instructions.

A4.2.5. Exercise Flight Safety. Flight safety takes precedence over all other considerations.

A4.2.5.1. Conduct target maneuvering only when specified in the aircrew instructions, ALTRV, or target schedule.

A4.2.5.2. Emergency breakaway maneuvers.

A4.2.5.3. Voice jamming and spoofing.

A4.3. Target Force Aircraft Identification and Monitoring. This paragraph gives general procedures for the flight following and monitoring of target aircraft during NORAD FTXs. This paragraph, NI 10-8(S), *NORAD E-3 Operating Procedures*, FAA Handbook 7610.4, and supporting region/sector orders/ATOs outline ADCF, E-3 and FAA/NAV Canada actions required to maximize continuous surveillance and monitoring of the target force. The individual target force aircrew must be thoroughly familiar with these actions and respond with the proper communications and IFF/SIF procedures.

A4.3.1. Departure. Target force aircraft operations are prescribed in approved ALTRV and target schedule, or as directed by the appropriate ATC facility. Communications frequencies and IFF/SIF replies are as directed.

A4.3.2. FAA and NAV Canada ATC Facilities. ATC facilities, including those serving the departure areas, provide surveillance and radar monitoring of the target aircraft in their radar service area. The ATC facility tells the appropriate ADCF that surveillance and monitoring ceases as the target force aircraft enters the ADCF-assigned airspace or the exercise area and a radar hand-off is initiated to the ADCF, if applicable. ATC facilities maintain overall control of target aircraft when the aircraft is on a moving ALTRV outside of exercise airspace. Aircrews must receive permission before leaving an ATC frequency. If IFF/SIF is not operational, the exercise route may not be flown without the approval of the concerned ARTCC, ACC and the faker monitor chief.

A4.3.3. Faker Monitor. Faker monitors use PTC to the maximum extent possible to provide surveillance and radar monitoring of target aircraft in assigned exercise airspace. During autonomous operations, the faker monitor is responsible for target safety only. However, since blue forces (fighters) do not receive control instructions, the faker monitor must actively point out blue forces to monitored target aircraft.

A4.3.4. Communications Procedures:

A4.3.4.1. None of the procedures previously mentioned precludes the target aircrew from making required position reports and communications checks with FAA and TC agencies. These agencies may request, at any time, that a specified aircraft return to their frequencies for IFF/SIF checks, special instructions, or traffic advisories. On completion of these communications, the target aircrew requests permission to return to ADCF frequency. The controlling agency approves all frequency changes.

A4.3.4.2. Target aircrew reports to the faker monitor on the initial check in:

A4.3.4.2.1. Target aircraft callsign.

A4.3.4.2.2. Position.

A4.3.4.2.3. Altitude.

A4.3.4.3. At the IP, target aircrew reports callsign and IP.

A4.3.4.4. The target aircrew complies with all requests for IFF/SIF squawks to aid identification.

- A4.3.4.5. All aircrews and controllers monitor guard frequency at all times.
- A4.3.4.6. The target aircrew contacts the faker monitor immediately when declaring an unsafe condition or when over target, Bomb Release Line (BRL), or EEP.
- A4.3.4.7. The faker monitor provides the target force aircrew with:
 - A4.3.4.7.1. The area altimeter setting for tracks flown below FL180 (see Canadian and North Atlantic Instrument Flight Rules (IFR) supplement).
 - A4.3.4.7.2. Information on impending intercepts.
 - A4.3.4.7.3. Notification when neutralized. This may include instructions to cease tactical action, voice jamming, ECM, target maneuvering and so forth.
 - A4.3.4.7.4. Notification when entering a new ADCF area including frequencies for communications contact and IFF/SIF changes, if appropriate.
- A4.3.4.8. The following instructions apply when target aircraft deviate from the planned route:
 - A4.3.4.8.1. If the target force aircrew believe that available NAVAIDs, communications facilities, or aircraft identification systems are inoperative or are giving erroneous readings, they immediately notify the appropriate controlling agency. The target aircrew initiates corrective action and advises the controlling agency if it can continue for the duration of the route.
 - A4.3.4.8.2. If the route cannot be safely continued, the target aircrew squawks Mode 3A, Code 5035, and aborts the mission. If total communication loss occurs, provisions in appropriate Flight Information Publication (FLIP) documents apply.

Attachment 5

TARGET TRACK DESIGN AND MANAGEMENT

A5.1. Target track design and management require the use of either ALTRV, DD Form 175, ICAO 1801, or DND 1054 flight plans. Exercise planners should consult the appropriate FAA and TC documents when planning ALTRVs. The following paragraphs summarize basic guidance and minimum requirements which must be accomplished by the FTX sponsor when planning both ALTRV and non-ALTRV target routes:

A5.2. The FTX sponsor requests ALTRVs whenever possible to ensure desired departures, enroute altitudes and desired recoveries are available to increase the probability of meeting exercise requirements. Planners refer to FAA Handbook 7610.4 or Transport Canada (TC) ATC Manual of Operations (MAN-OPS), when developing ALTRVs.

A5.2.1. File ALTRV requests with the appropriate agency as far in advance of the execution date as possible. Minimum filing times are in FAA Handbook 7610.4 and applicable TC publications.

A5.2.2. File ALTRVs planned to operate in both Canada and US airspace with both ARU and CARF.

A5.2.3. Indicate on ALTRV requests that the exercise information is for "Control Eyes Only." Preface ARTCC, ACC, CARF and ARU transmissions or any exercise information with this statement: "FAA/NAV Canada agencies, upon seeing this statement, are instructed not to discuss information pertaining to the exercise with other than the project officer or designated exercise controllers (i.e., faker monitor, airspace managers and so forth)."

A5.2.4. In the US, coordinate departure and arrival procedures (to include specific Standard Instrument Departures [SID]), radar vectors, level-off points and enroute altitudes) with the appropriate ATC facility before completion of the ALTRV and submission to CARF.

A5.2.5. In Canada, do not plan detailed departure procedures. Instead, annotate "Departure and arrival per ATC instructions" in the remarks section.

A5.2.6. In the remarks section, list the name of the individual and the control facility with which coordination was effected.

A5.2.7. Apply the following minimum departure separation criteria between aircraft and formations:

A5.2.7.1. Aircraft which fly the same route and altitude - 10 minutes.

A5.2.7.2. Aircraft which fly the same route but use different altitudes - 5 minutes.

A5.2.7.3. Aircraft which fly diverging routes should be planned with a minimum of 15 degrees between tracks and at least 2 minutes departure separation. *Note:* Aircraft separation must be ensured. Planners must be aware of aircraft characteristics in their planning. Do not plan faster aircraft behind slower aircraft when applying minimum separation criteria; for example, F-15 following bomber aircraft using same route and altitude.

A5.2.8. Consider the earliest ETD and latest AVANA takeoff times when using ALTRV to compute level-off, crossing and IP times.

A5.2.9. Whenever possible, plan inbound and outbound routes with a minimum of 15 degrees divergence between them.

A5.2.10. Plan ALTRVs to the IAF, transition fix, or NAVAIDs which most clearly establishes the route of flight to destination to include the intended approach, when possible. Plan arrivals at each recovery base to avoid saturation. Arriving aircraft must have either time or altitude separation appropriate to the planning criteria being used at the navigational fix serving the destination airport. Avoid "fly-throughs" under arriving aircraft. When the recovery base and the ground target are the same, make sure radio and radar contact with the controlling ATC facility is established at least 10 minutes prior to actual arrival time. It may be necessary to plan some tracks to a point beyond the programmed recovery base to allow proper stacking and timing for recovery.

A5.3. Non-ALTRV (DD Form 175, ICAO 1801, or DND 1054). Pre-exercise coordination is the same as for ALTRV missions.

A5.3.1. Individual flight planning is done by the aircrew for transition to and from exercise airspace.

A5.3.2. General guidance provided to target aircrew by exercise planner to aid the aircrew in planning should be:

A5.3.2.1. IP times and position.

A5.3.2.2. Altitude and route.

A5.3.2.3. Exercise airspace.

A5.3.2.4. Length of delay, if applicable.

A5.4. Exercise Route Criteria.

A5.4.1. Vertical. - Standard minimums specified for the area of operation.

A5.4.2. Lateral. - Standard minimums specified for the area of operation. *Note:* Lateral separation criteria above may be reduced if continuous radar monitoring can be maintained and/or if affected aircraft agree to maintain their own separation by either visual or electronic means (i.e., radar).

A5.4.3. Longitudinal. 10 minutes minimum between aircraft at same altitude (must ensure that separation will be maintained).

A5.4.4. Crossing tracks at the same altitude or flight level must have at least 30 minutes separation. *Note:* This is an ALTRV requirement only. Consider the earliest and latest possible times an aircraft can arrive at a certain point based on scheduled takeoff time and the Altitude Reservation Void if AVANA.

A5.4.4.1. Describe each route segment using the appropriate NAVAIDs when required. Ensure separation at every point along the route for all segments of routing especially inside exercise airspace.

A5.4.4.2. Exercise planners use individual aircraft capabilities for climb performance and no-wind range. Planning considers mean winds and the possible requirements for an alternate airfield. If routes are planned to the full no-wind distance, anticipate cancellations. Planners use aircraft criteria in the current FGHQ Target Force Operations Order (FG OPOD 2-516) when planning exercise tracks for Canadian aircraft.

A5.4.4.3. For planning of exercise routes, plan in exactly the same manner as for an individual cross-country flight using a DD Form 175, ICAO 1801, or DND 1054, as applicable. Clearly

identify the flight route using appropriate NAVAIDs and utilizing on-board systems (i.e., INS) within the capability of each aircraft in question. Make sure time, distance and altitude spacing factors provide fuel reserves at the recovery base, in accordance with AFI 11-202, *Volume 3, General Flight Rules*, for the US and CFP 100, Volumes I, II and III, for the CF. Use ECM aircraft for the best possible saturation of each area of the system. Plan missions to avoid high density traffic terminal areas and airways when possible. Avoid climbs or descents along or crossing civil jet routes. *Note:* Hold target aircraft recovering into fighter bases actively participating in the exercise to a minimum. Plan recovering aircraft to arrive with maximum possible separation.

A5.4.4.4. When designing exercises which include overwater tracks, use the following guidelines:

A5.4.4.4.1. Hold the planning of single-engine aircraft on overwater tracks, where water temperature is less than 51 degrees Fahrenheit (10.5 degrees Centigrade), to an absolute minimum consistent with exercise requirements, regardless of whether the track is outside or within gliding distance of land.

A5.4.4.4.2. When planning target tracks, exercise planners should refer to seasonal (monthly) sea and lake temperature forecast charts to determine if anti-exposure suits are required according to appropriate directives. Make sure only units with anti-exposure suits are tasked, by message, to fly routes.

A5.4.4.5. When using ALTRVs, use both geographic coordinates and radial and distance from the appropriate NAVAID to define route of flight on all segments in Canadian airspace and for only that portion of route inside exercise airspace in the US.

A5.4.4.6. Plan for target aircraft to operate IFF/SIF per **Attachment 7**. Appropriate mode, codes and change points should be specified in ALTRV (items D and G) or aircrew instructions and target schedule.

A5.4.4.7. Annotate approved exercise flight plans, "Pass to air defense radar (PADRA)," or "NOPAR," as required, in the remarks section of the ALTRV, DD Form 175, or ICAO 1801, or DND 1054. Specify each sector or area affected (NOPAR, SE SAOC, PADRA CDN RAOC, etc.). Pass NOPAR flight plans to exercise controllers. Furnish exercise controllers' names and telephone extensions to the appropriate ATC facility.

Attachment 6

POSITIVE TARGET CONTROL

A6.1. General. Each region and sector is responsible for providing a PTC team for each CINCNO-RAD-sponsored FTX. Regions and sectors implement PTC procedures according to this attachment. Regions and sectors are encouraged to supplement this information with RAOC-/SAOC-unique considerations.

A6.2. PTC Planning. The key to PTC is proper IFF/SIF assignment and correct target design and management.

A6.2.1. IFF/SIF Code Usage:

A6.2.1.1. PTC planners assign IFF/SIF Mode 3/A discrete beacon codes from the following blocks of codes (extracted from FAA Handbook 7610.4 and NR 55-68): Codes 5036-5077, 5400-5477, 6100-6177 and 6400-6477 are used in CONUS. Codes 5000-5077, 5400-5477, 6100-6177, 6400-6477 and 7100-7177 are used in Canada. Codes 4600-4677 and 7100-7177 are used in Alaska. (In CONUS, prior coordination with HQ 1AF/DOX is required). These codes are normally assigned to target aircraft only, however, fighter aircraft may be assigned these codes in accordance with NR 55-68(S), *NORAD Identification Friend or Foe (IFF)/Selective Identification Feature (SIF) Instructions*. Non-target aircraft such as E-3s or tankers will normally be on an ATC-assigned discrete beacon code. **Note:** Code 5035 is reserved by all regions/sectors for target aircraft to indicate an unsafe situation and to terminate intercept activity. Codes 5000-5034 are reserved by 1AF/DOX for CONUS counterdrug operations (i.e., US Customs Service).

A6.2.1.2. Normally, the last two or three digits of a target force aircraft's exercise track number (callsign) and discrete beacon code are the same. Target force aircraft retain their initial callsign suffix throughout the entire exercise, even if multiple IP/HHCL are used. Once target aircraft have reached their EEP, ATC will often change the aircraft code.

A6.2.1.3. If the same discrete Mode 3/A beacon code is used by more than one target force aircraft, do not plan those aircraft to operate in the same sector or in the same or adjacent ARTCC/ACC airspace at the same time. Additionally, do not use any code with the same last two or three digits in the same sector at the same time (i.e., 5401 and 6401).

A6.2.1.4. Target force aircrews place IFF/SIF Modes 1, 2, and 4 in the standby position before takeoff or as directed by the FTX sponsor (FAA coordination is required and a waiver of FAR 91.97 is necessary for IFF/SIF Mode 3/A and Mode C to be operated in standby in the positive control area).

A6.2.1.5. Target force aircrews use Mode 3/A, Code 5035 to terminate intercept activity prior to EEP if an unsafe condition or route abort occurs. In an emergency situation, use Code 7700.

A6.2.1.6. When the assigned faker monitor established positive identification on a target, the following actions should be accomplished:

A6.2.1.6.1. Ensure IFF/SIF responses are appropriate.

A6.2.1.6.2. In RAOCs, SAOCs and AWACS, initiate TANGO symbology. **Note:** Mode 3/A IFF/SIF is denied to player consoles when the IFF codes are entered. Faker monitor and WD

coordination may be required to ensure fighter interceptor separation from outbound targets not detected by the system.

A6.2.1.6.3. Radio contact is not required for faker monitors to identify an aircraft as a valid target if it is squawking the appropriate code, within flight plan parameters, and at the correct altitude (confirmed by the previous control agency).

A6.2.1.6.4. Faker monitors declare targets unsafe if:

A6.2.1.6.4.1. They believe their capability to provide safe separation is being exceeded.

A6.2.1.6.4.2. A target reaches EEP or BRL.

A6.2.1.6.4.3. A target starts to regenerate.

A6.2.1.6.4.4. The air situation dictates cessation of intercepts.

A6.2.2. Target Track Design and Management. The other key element for PTC is proper track design and management. Detailed guidance to accomplish this is contained in **Attachment 5**.

Attachment 7**ROUTE INFORMATION PACKAGE CONTENTS**

A7.1. The FTX sponsor is responsible for producing route information packages for target aircrews. The minimum contents of these packages are listed below.

A7.1.1. ALTRVs. ALTRVs as coordinated and requested. CARF and ARU ALTRV approvals, when received, are sent along with changes and/or modifications to aircrews prior to the mission.

A7.1.2. Target schedules.

A7.1.3. Target force coordinator and aircrew instructions to include:

A7.1.3.1. In-place times.

A7.1.3.2. Specific filing and clearance procedures:

A7.1.3.2.1. ALTRV and non-ALTRV procedures.

A7.1.3.2.2. DD Form 175, DND 1054 and ICAO 1801.

A7.1.3.2.3. Low-altitude procedures.

A7.1.3.3. Target force coordinating procedures.

A7.1.3.4. ECM and chaff instructions.

A7.1.3.5. Voice jamming procedures.

A7.1.3.6. Target coordinator instructions.

A7.1.3.7. IFF/SIF instructions.

A7.1.3.8. General instructions.

A7.1.3.8.1. Position reporting requirements.

A7.1.3.8.2. Recall word and use.

A7.1.3.8.3. Target maneuvering and limits.

A7.1.3.8.4. Allowable weather delays.

A7.1.3.8.5. Weather minimums.

A7.1.3.8.6. CF support. If CF Rescue Coordination Center (CFRCC) support has not been confirmed, enter statement that CFRCC support has been requested. Obtain support information by contacting the exercise control team the day of the exercise.

Attachment 8**STAGING AND TURNAROUND BASE PLANNING AND COORDINATION**

A8.1. The FTX sponsor plans and coordinates staging and turnaround bases for target aircraft. The following summarizes planning and coordination considerations.

A8.1.1. When planning staging and turnaround bases, consult enroute supplements and applicable publications for base capabilities and operating hours. Ensure staging and turnaround bases have the following:

A8.1.1.1. A published instrument approach procedure, other than radar, that is compatible with the navigational equipment aboard each type of aircraft.

A8.1.1.2. Proper petroleum, oil and lubricants (POL), oxygen and support equipment for each type of aircraft. Do not plan for the use of alternate or emergency fuel types.

A8.1.1.3. A runway of sufficient length and weight-bearing capacity.

A8.1.2. Send requests for USAF base support to:

A8.1.2.1. Deputy Commander for Maintenance of the host base.

A8.1.2.2. Programs and mobility office of the host base.

A8.1.2.3. Airfield manager of the host base (at least 60 days in advance).

A8.1.3. Send information copies of requests for ACC base support to the office for programs and mobility of the parent NAF.

A8.1.4. Send requests for use of 1CAD base support to applicable Wing/WOPSO, with an information copy to 1CAD/A3 EXCOORD.

A8.1.5. Coordinate with each staging and turnaround base a minimum of 60 days prior to exercise. Direct coordination between bases and aircraft parent units is authorized for detailed support requirements. Changes occurring subsequent to the 60-day coordination between bases and aircraft parent units is authorized for detailed support requirements. Changes occurring subsequent to the 60-day coordination are the responsibility of the concerned target force aircrew. Coordination includes:

A8.1.5.1. HQ conducting exercise.

A8.1.5.2. Exercise names.

A8.1.5.3. Number and type of aircraft requiring support.

A8.1.5.4. Dates of deployment.

A8.1.5.5. Mission times.

A8.1.5.6. Billeting, transportation and messing requirements.

A8.1.5.7. Support required to include type and quantity of fuel, oxygen, power units and chaff, when applicable.

A8.1.5.8. If customs support is required and not available during the exercise, the region conducting the exercise pays the overtime charges billed by US or Canadian Customs service.

A8.2. After coordination for staging and turnaround base support is completed, advise applicable support bases of exercise delays, changes and/or cancellations affecting any previous support arrangement.