Chapter 1. Introduction

Section 1. General

1-1-1. PURPOSE

This order prescribes air traffic control procedures and phraseology for use by persons providing air traffic control services. Controllers are required to be familiar with the provisions of this order that pertain to their operational responsibilities and to exercise their best judgment if they encounter situations that are not covered by it.

1-1-2. DISTRIBUTION

This order is distributed to selected offices in Washington Headquarters, Regional Offices, the Technical Center, and the Aeronautical Center. Also, copies are sent to all air traffic control facilities, all international aviation field offices, and the interested aviation public.

1-1-3. CANCELLATION

FAA Order 7110.65L, Air Traffic Control, dated February 26, 1998, and all changes to it are canceled.

1-1-4. EXPLANATION OF MAJOR CHANGES

The significant changes to this order are identified in the Explanation of Changes page(s). It is advisable to retain the page(s) throughout the duration of the basic order. If further information is desired, direct questions through the appropriate facility/region staff to the office shown in parentheses following the change.

1-1-5. EFFECTIVE DATE

This order is effective **February 24, 2000.**

1-1-6. RECOMMENDATIONS FOR PROCEDURAL CHANGES

a. Personnel should submit recommended changes in procedures to facility management.

b. Recommendations from other sources should be submitted through appropriate FAA, military, or industry/user channels to Headquarters, FAA, Director of Air Traffic, AAT-1, attention: ATP-100.

1-1-7. PUBLICATION AND DELIVERY DATES

a. This order and its changes are scheduled to be published according to TBL 1-1-1.

Publications Timetable

Basic or Change	*Cutoff Date for Submission*	*Effective Date of Publication*
7110.65M Basic	7/15/99	2/24/00
Change 1	2/24/00	8/10/00
Change 2	8/10/00	1/25/01
Change 3	1/25/01	7/12/01
7110.65N Basic	7/12/01	2/21/02

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b. If an FAA facility **has not** received the order/changes at least 30 days before the above effective dates, the facility shall notify its regional distribution officer.

c. If a military facility **has not** received the order/changes at least 30 days before the above effective dates, the facility shall notify its appropriate military headquarters. (See TBL 1-1-2.)

Military Distribution Contacts

Military Headquarters	*DSN*	*Commercial*
U.S. Army, USAASA	656-4868	(703) 806-4868
U.S. Air Force		Contact Local *NIMA Customer Account Representative
U.S. Navy, CNO (N885F)	224-2710	(703) 614-2710
*NIMA-National Imagery and Mapping Agency		

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1-1-8. PROCEDURAL LETTERS OF AGREEMENT

Procedures/minima which are applied jointly or otherwise require the cooperation or concurrence of more than one facility/organization must be documented in a letter of agreement. Letters of agreement only supplement this order. Any minima they specify must not be less than that specified herein unless appropriate military authority has authorized application of reduced separation between military aircraft.

REFERENCE-
FAAO 7110.65, ATC Service, Para 2-1-1.
FAAO 7210.3, Letters of Agreement, Para 4-3-1.

1-1-9. CONSTRAINTS GOVERNING SUPPLEMENTS AND PROCEDURAL DEVIATIONS

a. Exceptional or unusual requirements may dictate procedural deviations or supplementary procedures to this order. Prior to implementing supplemental or any procedural deviation that alters the level, quality, or degree of service, obtain prior approval from the Director of Air Traffic, AAT-1.

b. If military operations or facilities are involved, prior approval by the following appropriate headquarters is required for subsequent interface with FAA. (See TBL 1-1-3.)

Military Operations Interface Offices

Branch	*Address*
U.S. Navy	CNO Office of the Chief of Naval Operations (N885F) 2000 The Pentagon Washington, D.C. 20350-2000
U.S. Air Force	HQ AFFSA/XA 1535 Command Drive, Suite D302, Andrews AFB, MD 20762-7002
U.S. Army	Director USAASA (MOAS-AS) 9325 Gunston Road, Suite N319 Ft. Belvoir, VA 22060-5582

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NOTE-
Terminal: Headquarters USAF has delegated to major Air Commands authority to authorize base commanders to reduce same runway separation standards for military aircraft. These are specified and approved by affected ATC and user units. When applied, appropriate advisories may be required; e.g., "(A/C call sign) continue straight ahead on right side; F-16 landing behind on left." "(A/C call sign) hold position on right side; F-5 behind on left."

REFERENCE-
FAAO 7110.65, Use of Active Runways, Para 3-1-3.

Section 2. Terms of Reference

1-2-1. WORD MEANINGS

As used in this manual:

a. *Shall*, or an action verb in the imperative sense, means a procedure is mandatory.

EXAMPLE-
The transferring controller *shall* forward this data to the receiving controller.

Issue an alternative clearance.

Authorize the aircraft to taxi.

Do not clear an aircraft to land on or takeoff from a closed runway.

b. *Should* means a procedure is recommended.

c. *May* or *need not* means a procedure is optional.

d. *Will* means futurity, not a requirement for the application of a procedure.

e. Singular words include the plural.

f. Plural words include the singular.

g. *Aircraft* means the airframe, crew members, or both.

h. *Approved separation* means separation in accordance with the applicable minima in this manual.

i. *Altitude* means indicated altitude mean sea level (MSL), flight level (FL), or both.

j. *Miles* means nautical miles unless otherwise specified, and means statute miles in conjunction with visibility.

k. *Course, bearing, azimuth, heading, and wind direction* information shall always be magnetic unless specifically stated otherwise.

l. *Time* when used for ATC operational activities, is the hour and the minute in Coordinated Universal Time (UTC). Change to the next minute is made at the minute plus 30 seconds, except time checks are given to the nearest quarter minute.

m. *Runway* means the runway used by aircraft, and in discussions of separation standards is applicable to helipads with accompanying takeoff/landing courses. (See Pilot/Controller Glossary term- Runway.)

n. Flight operations in accordance with the options of *due regard* or *operational* obligates the authorized state aircraft commander to:

1. Separate his/her aircraft from all other air traffic; and

2. Assure that an appropriate monitoring agency assumes responsibility for search and rescue actions; and

3. Operate under at least one of the following conditions:

(a) In visual meteorological conditions (VMC); or

(b) Within radar surveillance and radio communications of a surface radar facility; or

(c) Be equipped with airborne radar that is sufficient to provide separation between his/her aircraft and any other aircraft he/she may be controlling and other aircraft; or

(d) Operate within Class G airspace.

(e) An understanding between the pilot and controller regarding the intent of the pilot and the status of the flight should be arrived at before the aircraft leaves ATC frequency.

NOTE-
1. *A pilot's use of the phrase "Going Tactical" does not indicate "Due Regard." An understanding between the pilot and controller regarding the intent of the pilot and the status of the flight should be arrived at before the aircraft leaves air traffic control (ATC) frequency.*

2. *The above conditions provide for a level of safety equivalent to that normally given by International Civil Aviation Organization (ICAO) ATC agencies and fulfills U.S. Government obligations under Article 3 of the Chicago Convention of 1944 (Reference (d)), which stipulates there must be "due regard for the safety of navigation of civil aircraft" when flight is not being conducted under ICAO flight procedures.*

o. *CFR* means Code of Federal Regulations.

Divergence

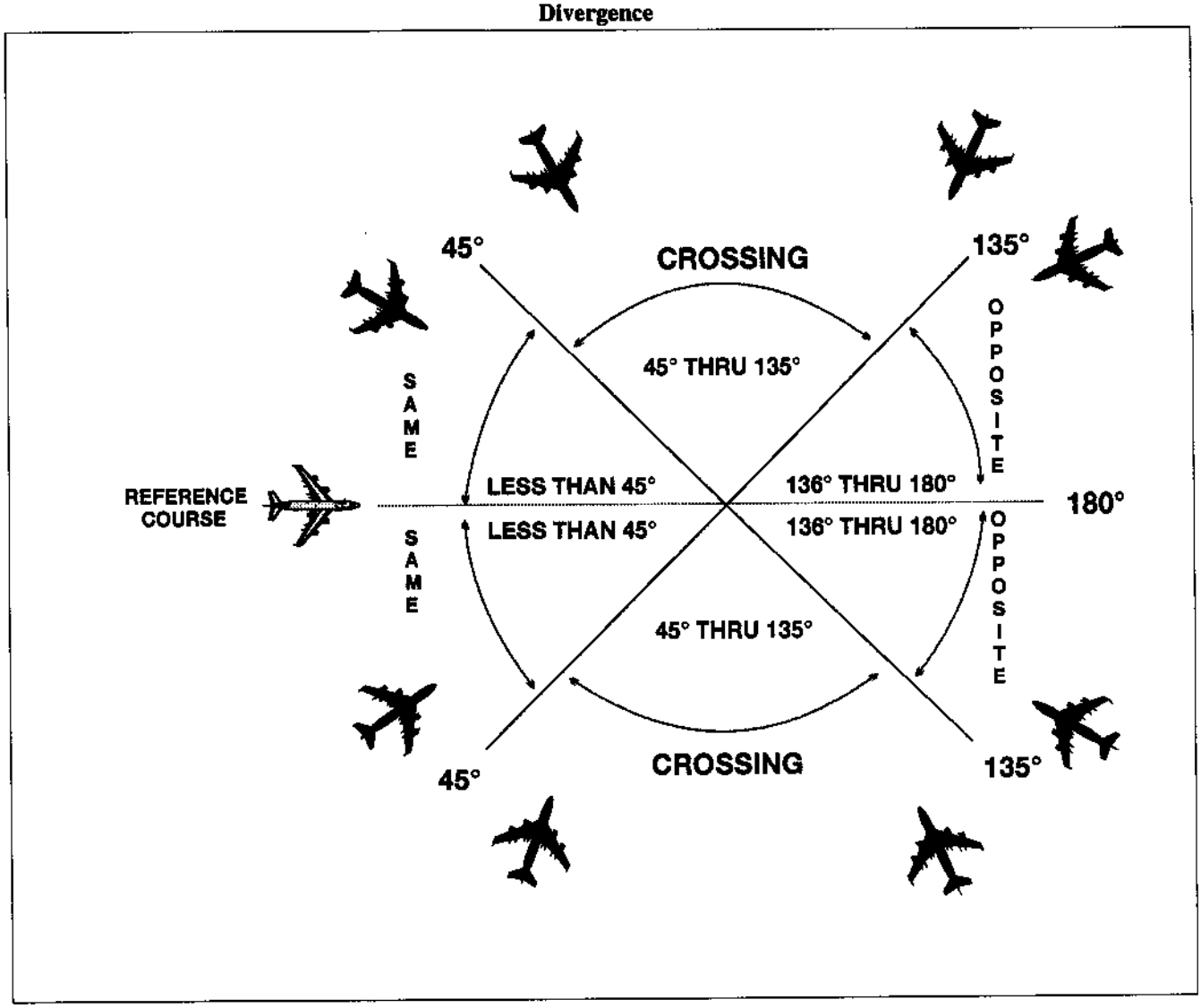

FIG 1-2-1

1-2-2. COURSE DEFINITIONS

The following definitions shall be used in the application of the separation criteria in this order.

NOTE-
The term "protected airspace," as used in this paragraph, is the airspace equal to one half the required applicable lateral separation on either side of an aircraft along its projected flight path. If the protected airspace of two aircraft does not overlap, applicable lateral separation is ensured.

a. *SAME COURSES* are courses whose protected airspaces are coincident, overlap, or intersect and whose angular difference is less than 45 degrees. (See FIG 1-2-1.)

b. *CROSSING COURSES* are intersecting courses whose angular difference is 45 through 135 degrees inclusive. (See FIG 1-2-1.)

c. *OPPOSITE/RECIPROCAL COURSES* are courses whose protected airspaces are coincident, overlap, or intersect and whose angular difference is 136 through 180 degrees inclusive. (See FIG 1-2-1.)

1-2-3. NOTES

Statements of fact, or of a prefatory or explanatory nature relating to directive material, are set forth as notes.

1-2-4. REFERENCES

As used in this order, references direct attention to an additional or supporting source of information such as FAA, NWS, and other agencies' orders, directives, notices, CFR's, and Advisory Circulars (AC's).

1-2-5. ANNOTATIONS

Revised, reprinted, or new pages are marked as follows:

a. The change number and the effective date are printed on each revised or additional page.

b. A page that does not require a change is reprinted in its original form.

c. Bold vertical lines in the margin of changed pages indicate the location of substantive revisions to the order. Bold vertical lines adjacent to the title of a chapter, section, or paragraph means that extensive changes have been made to that chapter, section, or paragraph.

d. Paragraphs/sections annotated with *EN ROUTE* or *TERMINAL* are only to be applied by the designated type facility. When they are not so designated, the paragraphs/sections apply to both types of facilities (en route and terminal).

e. The annotation, *USAF* for the U.S. Air Force, *USN* for the U.S. Navy, and *USA* for the U.S. Army denotes that the procedure immediately following the annotation applies only to the designated service.

REFERENCE-
FAAO 7110.65, Military Procedures, Para 2-1-12.

f. WAKE TURBULENCE APPLICATION inserted within a paragraph means that the remaining information in the paragraph requires the application of wake turbulence procedures.

g. The annotation ***PHRASEOLOGY*** denotes the prescribed words and/or phrases to be used in communications.

NOTE-
Controllers may, after first using the prescribed phraseology for a specific procedure, rephrase the message to ensure the content is understood. Good judgement shall be exercised when using nonstandard phraseology.

h. The annotation ***EXAMPLE*** provides a sample of the way the prescribed phraseology associated with the preceding paragraph(s) will be used. If the preceding paragraph(s) does (do) not include specific prescribed phraseology, the ***EXAMPLE*** merely denotes suggested words and/or phrases that may be used in communications.

NOTE-
The use of the exact text contained in an example not preceded with specific prescribed phraseology is not mandatory. However, the words and/or phrases are expected, to the extent practical, to approximate those used in the example.

1-2-6. ABBREVIATIONS

As used in this manual, the following abbreviations have the meanings indicated. (See TBL 1-2-1.)

FAA Order 7110.65 Abbreviations

Abbreviation	*Meaning*
AAR	Airport acceptance rate
AAT-1	Director of Air Traffic
AC	Advisory Circular
ACC	Area Control Center
ACL	Aircraft list
ACLS	Automatic Carrier Landing System
ADC	Aerospace Defense Command
ADIZ	Air defense identification zone (to be pronounced "AY DIZ")
AIM	Aeronautical Information Manual
AIRMET	Airmen's meteorological information
ALERFA	Alert Phase code (Alerting Service)
ALNOT	Alert notice
ALS	Approach light system
ALTRV	Altitude reservation
AMASS	Airport Movement Area Safety System
AMB	Ambiguity-A disparity greater than 2 miles exists between the position declared for a target by ATTS and another facility's computer declared position during interfacility handoff
AMVER	Automated Mutual Assistance Vessel Rescue System
ANG	Air National Guard
APR	ATC preferred route
ARINC	Aeronautical Radio Incorporated
ARIP	Air refueling initial point
ARS	Air Traffic System Requirements Service
ARSR	Air route surveillance radar
ARTCC	Air route traffic control center
ARTS	Automated Radar Tracking System
ASDE	Airport surface detection equipment
ASR	Airport surveillance radar
ATA	Air Traffic Airspace Management Program

Abbreviation	Meaning
ATC	Air traffic control
ATCAA	ATC assigned airspace
ATCSCC	Air Traffic Control System Command Center
ATIS	Automatic terminal information service
ATP	Air Traffic Planning and Procedures
ATS	Air Traffic Service
ATTS	Automated Terminal Tracking Systems
BASE	Cloud base
CARCAH	Chief, Aerial Reconnaissance Coordination, All Hurricanes
CARF	Central Altitude Reservation Function
CAT	Clear air turbulence
CDT	Controlled Departure Time
CENRAP	Center Radar ARTS Presentation
CEP	Central East Pacific
CERAP	Combined Center/RAPCON
CFR	Code of Federal Regulations
CNS	Continuous
CPME	Calibration Performance Monitor Equipment
CTA	Control Area
CTRD	Certified Tower Radar Display
CVFP	Charted Visual Flight Procedure
CWA	Center Weather Advisory
DARC	Direct Access Radar Channel
DETRESFA	Distress Phase code (Alerting Service)
DF	Direction finder
DH	Decision height
DME	Distance measuring equipment compatible with TACAN
DOE	Department of Energy
DP	Instrument Departure Procedure
DR	Dead Reckoning
DSR	Display System Replacement
DVFR	Defense Visual Flight Rules
ECM	Electronic countermeasure
EDARC	Enhanced Direct Access Radar Channel
EDCT	Expect Departure Clearance Time
EFC	Expect further clearance
ELT	Emergency locator transmitter
EOVM	Emergency obstruction video map
ETA	Estimated time of arrival
FAA	Federal Aviation Administration
FAAO	FAA Order
FDIO	Flight Data Input/Output
FIR	Flight Information Region
FL	Flight level
FLIP	Flight Information Publication
FLY	Fly or flying
FMS	Flight Management System
FMSP	Flight Management System Procedure
FSS	Flight Service Station

Abbreviation	Meaning
GCA	Ground controlled approach
GNSS	Global Navigation Satellite System
GPD	Graphics Plan Display
GPS	Global Positioning System
HIRL	High intensity runway lights
ICAO	International Civil Aviation Organization
IDENT	Aircraft identification
IFR	Instrument flight rules
IFSS	International flight service station
ILS	Instrument Landing System
INCERFA	Uncertainty Phase code (Alerting Service)
INREQ	Information request
INS	Inertial Navigation System
IR	IFR military training route
JATO	Jet assisted takeoff
LAHSO	Land and Hold Short Operations
LLWAS	Low level wind shear alert system
L/MF	Low/medium frequency
LORAN	Long Range Navigation System
LTD	Along Track Distance
Mach	Mach Number
MALS	Medium intensity approach light system
MALSR	Medium approach light system with runway alignment indicator lights
MAP	Missed approach point
MARSA	Military authority assumes responsibility for separation of aircraft
MCA	Minimum crossing altitude
MCI	Mode C Intruder
MDA	Minimum descent altitude
MDM	Main Display Monitor
MEA	Minimum en route (IFR) altitude
M-EARTS	Micro-En Route Automated Radar Tracking System
MIA	Minimum IFR altitude
MIRL	Medium intensity runway lights
MLS	Microwave Landing System
MNPS	Minimum Navigation Performance Specification
MOA	Military operations area
MOCA	Minimum obstruction clearance altitude
MRA	Minimum reception altitude
MSAW	Minimum Safe Altitude Warning
MSL	Mean sea level
MTI	Moving target indicator
MTR	Military training route
MVA	Minimum vectoring altitude
NADIN	National Airspace Data Interchange Network
NAS	National Airspace System
NAT	ICAO North Atlantic Region
NBCAP	National Beacon Code Allocation Plan
NDB	Nondirectional radio beacon

Abbreviation	Meaning
NHOP	National Hurricane Operations Plan
NIDS	National Institute for Discovery Sciences
NM	Nautical Mile
NOAA	National Oceanic and Atmospheric Administration
NOPAC	North Pacific
NORAD	North American Aerospace Defense Command
NOS	National Ocean Service
NOTAM	Notice to Airmen
NRP	National Route Program
NTZ	No transgression zone
NWS	National Weather Service
NWSOP	National Winter Storm Operations Plan
ODALS	Omnidirectional approach lighting system
OID	Operator Interface Device
ONER	Oceanic Navigational Error Report
OS	Operations Supervisor
OTR	Oceanic Transition Route
PAR	Precision approach radar
PAR	Preferred arrival route
PBCT	Proposed Boundary Crossing Time
P/CG	Pilot/Controller Glossary
PDAR	Preferential departure arrival route
PDR	Preferential departure route
PIDP	Programmable Indicator Data Processor
PPI	Plan position indicator
PVD	Plan View Display
RA	Radar Associate
RAIL	Runway alignment indicator lights
RAPCON	Radar approach control facility (USAF)
RATCF	Radar air traffic control facility (USN)
RBS	Radar bomb scoring
RCC	Rescue Coordination Center
RCLS	Runway centerline system
RCR	Runway condition reading
RE	Recent (used to qualify weather phenomena such as rain, e.g. recent rain = RERA)
REIL	Runway end identifier lights
RNAV	Area Navigation
RTQC	Real-Time Quality Control
RVR	Runway visual range
RVSM	Reduced Vertical Separation Minimum
RVV	Runway visibility value
SAR	Search and rescue
SELCAL	Selective calling system
SFA	Single frequency approach
SFO	Simulated flameout

Abbreviation	Meaning
SIGMET	Significant meteorological information
STAR	Standard terminal arrival
STARS	Standard Terminal Automation Replacement System
STMC	Supervisory Traffic Management Coordinator
STMCIC	Supervisory Traffic Management Coordinator-in-charge
STOL	Short takeoff and landing
SURPIC	Surface Picture
SVFR	Special Visual Flight Rules
TAA	Terminal Arrival Area
TACAN	TACAN UHF navigational aid (omnidirectional course and distance information)
TCAS	Traffic Alert and Collision Avoidance System
TCDD	Tower Cab Digital Display
TDW	Tower Display Workstation
TDZL	Touchdown zone light system
TMC	Traffic management coordinator
TMU	Traffic management unit
TRACON	Terminal radar approach control
TRSA	Terminal radar service area
UFO	Unidentified flying object
UHF	Ultra high frequency
URET	User Request Evaluation Tool
URET CCLD	User Request Evaluation Tool Core Capability Limited Deployment
USA	United States Army
USAF	United States Air Force
USN	United States Navy
UTC	Coordinated Universal Time
UTM	Unsuccessful transmission message
UUA	Urgent Pilot Weather Report
VFR	Visual flight rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions
VOR	VHF navigational aid (omnidirectional course information)
VOR/DME	Collocated VOR and DME navigational aids (VHF course and UHF distance information)
VORTAC	Collocated VOR and TACAN navigation aids (VHF and UHF course and UHF distance information)
VR	VFR military training route
VSCS	Voice Switching and Control System
WATRS	West Atlantic Route System
WSO	Weather Service Office
WST	Convective SIGMET

TBL 1-2-1