Section 9. Pacific ICAO Region

8-9-1. APPLICATION

Provide air traffic control services in the Pacific ICAO Region with the procedures and minima contained in this section except when noted otherwise.

8-9-2. VERTICAL SEPARATION

Provide vertical separation in accordance with Chapter 4, IFR, Section 5, Altitude Assignment and Verification, except when aircraft operate within airspace where composite separation and procedures are authorized, apply the minima specified in para 8-9-5, Composite Separation Minima.

8-9-3. LONGITUDINAL SEPARATION

Provide longitudinal separation between aircraft as follows:

a. Between all aircraft, *15 minutes*; or

b. Between turbojet aircraft provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique:

1. *10 minutes*; or

2. Between *9 and 5 minutes* provided:

(a) It is possible to ensure by radar or other approved means that the required time interval will exist at the common point from which the aircraft either follow the same track or continuously diverging tracks; and

(b) The preceding aircraft is maintaining a greater Mach number than the following aircraft in accordance with the following table:

(1) *9 minutes* if the preceding aircraft is Mach 0.02 faster than the following aircraft.

(2) *8 minutes* if the preceding aircraft is Mach 0.03 faster than the following aircraft.

(3) *7 minutes* if the preceding aircraft is Mach 0.04 faster than the following aircraft.

(4) *6 minutes* if the preceding aircraft is Mach 0.05 faster than the following aircraft.

(5) *5 minutes* if the preceding aircraft is Mach 0.06 faster than the following aircraft.

8-9-4. LATERAL SEPARATION

Provide lateral separation by one of the following:

a. Clear aircraft on different flight paths whose route widths or protected airspace do not overlap.

b. Within areas where Required Navigation Performance 10 (RNP-10) separation and procedures are authorized, apply *50 NM* between RNP-10 approved aircraft.

c. When aircraft operate within airspace where composite separation and procedures are authorized, apply the minimum specified in para 8-9-5, Composite Separation Minima.

d. When subparas a, b, or c are not applicable, *apply 100 NM* between aircraft.

8-9-5. COMPOSITE SEPARATION MINIMA

Provide composite separation within the Central East Pacific (CEP) and North Pacific (NOPAC) composite route systems and where designated by facility directive in the Pacific Organized Track System (PACOTS) at and above FL 290 as follows:

a. *1,000 feet* vertical separation; and

b. *50 NM* lateral separation.

8-9-6. COMPOSITE SEPARATION ALTITUDE ASSIGNMENT

a. Aircraft operating at or above FL 300 in a composite route system may be cleared at even flight levels. Additionally, aircraft may be cleared at even flight levels while joining, crossing, or leaving a composite route system provided such aircraft leaving the system are cleared to an appropriate odd cardinal flight level when noncomposite vertical or lateral separation is achieved.

b. Aircraft (operating at or above FL 300) leaving a composite route system at an even cardinal flight level do not have to be assigned an odd cardinal flight level provided:

1. The aircraft is being provided radar service; and

2. The aircraft will be cleared for descent and approach to an airport within the facility's domestic FIR; and

3. There is an operational advantage.

c. Aircraft operating on unidirectional routes or traffic flows may be assigned altitudes other than the appropriate altitude for direction of flight provided that 2,000 feet vertical separation is maintained between aircraft operating on the same route.

8-9-7. COMPOSITE SEPARATION APPLICATION

Provide composite separation in the CEP and the North Pacific (NOPAC) composite route systems and where designated by facility directive in the Pacific Organized Track System (PACOTS) as follows:

a. Clear an aircraft to join an outer route of the composite route system at other than the normal entry point provided:

1. Longitudinal or noncomposite vertical separation exists between that aircraft and any other aircraft on that route; and

2. Composite separation exists between that aircraft and any other aircraft on the next adjacent route.

b. Clear an aircraft to leave an outer route of the composite route system at other than the normal exit point provided its course diverges so that lateral spacing from the route system increases until noncomposite separation exists between that aircraft and any other aircraft in the composite route system.

c. Clear an aircraft to change from one route to an adjacent route within the composite route system provided:

1. Longitudinal or noncomposite vertical separation is maintained between that aircraft and any other aircraft on the route being vacated until that aircraft is established on the route to which it is proceeding; and

2. Longitudinal or noncomposite vertical separation exists between that aircraft and any other aircraft on the route to which that aircraft is proceeding; and

3. Composite separation exists between that aircraft and any other aircraft on the next adjacent route.

d. Clear an aircraft to cross the composite route system provided longitudinal or noncomposite vertical or lateral separation exists between that aircraft and any other aircraft in the composite route system.

e. Clear aircraft to transition to or from the composite route system from an Oceanic Transition Route (OTR) provided:

1. The OTR is charted on aeronautical charts; and

2. Composite separation is maintained between that aircraft and any other aircraft within the composite route system; and

NOTE-
An aircraft is within the confines of a composite route system when the aircraft joins or crosses the outer route of the composite route system or passes a composite route entry point.

3. Composite separation is maintained between that aircraft and any other aircraft on adjacent OTR's.

f. Clear an aircraft to change altitude on a route if noncomposite separation exists between that aircraft and others operating on that route regardless of other aircraft operating on adjacent routes in the system. Pilot's discretion climbs and descents are not authorized when applying composite separation.

NOTE-
Although composite separation is not applied between aircraft on different tracks at FL 280 and FL 290, this paragraph applies to climbs and descents between FL 280 and altitudes within the composite altitude stratum (FL 300 and above).

8-9-8. VFR CLIMB AND DESCENT

a. In the Pacific CTA, IFR flights may be cleared to climb and descend in VFR conditions only if the following conditions are met:

1. When requested by the pilot.

2. Between sunrise and sunset.

b. Apply the following when the flight is cleared.

1. If there is a possibility that VFR conditions may become impractical, issue alternative instructions.

2. Issue traffic information to aircraft that are not separated in accordance with the minima in this section.

8-9-9. PROCEDURES FOR WEATHER DEVIATIONS AND OTHER CONTINGENCIES IN OCEANIC CONTROLLED AIRSPACE

Aircraft must request an ATC clearance to deviate. Since aircraft will not fly into known areas of weather, weather deviation requests should take priority over routine requests. If there is conflicting traffic and ATC is unable to establish standard separation, ATC shall:

a. Advise the pilot that standard separation cannot be applied;

b. If possible, suggest a course of action; and

NOTE-

1. *ATC may suggest that the pilot climb or descend to a contingency altitude (1,000 feet above or below that assigned if operating in an area of 2,000 feet standard vertical separation; 500 feet above or below that assigned if operating in an area of 1,000 feet standard vertical or composite separation).*

2. *Once the deviating aircraft has begun a maneuver without an ATC clearance in response to weather or other contingency, the controller is not responsible for providing standard separation between the aircraft that is deviating and any other aircraft or airspace. Responsibility for providing standard separation resumes when the deviating aircraft has advised ATC that it has returned to its original or a revised ATC cleared level and track.*

c. To the extent practical, provide traffic information for all affected aircraft.

PHRASEOLOGY-

STANDARD SEPARATION NOT AVAILABLE; SUGGEST CLIMB (or descent) TO (appropriate altitude); TRAFFIC (position and altitude); REPORT DEVIATION COMPLETE.

d. The pilot will follow the advisory altitude when approximately 10 NM from track.

e. At the completion of the deviation, ATC shall establish standard separation as soon as practicable.

NOTE-

In the event that pilot/controller communications cannot be established or a revised ATC clearance is not available, pilots will follow the procedures outlined in the Aeronautical Information Manual (AIM) and Chart Supplements.