

APPENDIX L

GLOSSARY

-A-

Agency. Any Federal agency or organization participating in the tropical cyclone warning service.

Airport Radar Service Area (ARSA). Regulatory airspace surrounding designated airports wherein ATC provides radar vectoring and sequencing on a full-time basis for all IFR and VFR aircraft. The service provided in an ARSA is called ARSA Service which includes: IFR/IFR-standard IFR separation; IFR/VFR-traffic advisories and conflict resolution; and VFR/VFR-traffic advisories and, as appropriate, safety alert. The Airman's Information Manual (AIM) contains an explanation of ARSA. The ARSA's are depicted on VFR aeronautical charts.

Air Traffic Control System Command Center (ATCSCC). The facility responsible for the real-time command, control, and oversight of air traffic activity within the National Airspace System. The ATCSCC is a 24 hour a day, 7 day a week operation.

Area Manager. Supervisor in charge of air route traffic control center or airport tower, shift to shift.

-C-

Center Fix. The location of the center of a tropical or subtropical cyclone obtained by means other than reconnaissance aircraft penetration. See also Vortex Fix.

Controlled Airspace. An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification.

- a. Controlled airspace is a generic term that covers Class A, Class B, Class C, Class D, and Class E airspace.
- b. Controlled airspace is also that airspace within which all aircraft operators are subject to certain pilot qualifications, operating rules, and equipment requirements in FAR Part 91 (for specific operating requirements, please refer to FAR Part 91). For IFR operations in any class of controlled airspace, a pilot must file an IFR flight plan and receive an appropriate ATC clearance. Each Class B, Class C, and Class D airspace area designated for an airport contains at least one primary airport around which the airspace is designated (for specific designations and descriptions of the airspace classes, please refer to FAR Part 71).
- c. Controlled airspace in the United States is designated as follows:

CLASS A: Generally, that airspace from 18,000 feet MSL up to and including FL 600, including the airspace overlying the waters within 12 nautical miles of the coast of the 48 contiguous States and Alaska. Unless otherwise authorized, all persons must operate their aircraft under IFR.

CLASS B: Generally, that airspace from the surface to 10,000 feet MSL surrounding the nation's busiest airports in terms of airport operations or passenger enplanements. The configuration of each Class B airspace area is individually tailored and consists of a surface area and two or more layers (some Class B airspace areas resemble upside-down wedding cakes), and is designed to contain all published instrument procedures once an aircraft enters the airspace. An ATC clearance is required for all aircraft to operate in the area, and all aircraft that are so cleared receive separation services within the airspace. The cloud clearance requirement for VFR operations is "clear of clouds."

CLASS C: Generally, that airspace from the surface to 4,000 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations or passenger enplanements. Although the configuration of each Class C area is individually tailored, the airspace usually consists of a surface area with a 5 nautical mile (NM) radius, an outer circle with a 10 NM radius that extends from 1,200 feet to 4,000 feet above the airport elevation and an outer area. Each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while within the airspace. VFR aircraft are only separated from IFR aircraft within the airspace. (See OUTER AREA).

CLASS D: Generally, that airspace from the surface to 2,500 feet above the airport elevation (charted in MSL) surrounding those airports that have an operational control tower. The configuration of each Class D airspace area is individually tailored and when instrument procedures are published, the airspace will normally be designed to contain the procedures. Arrival extensions for instrument approach procedures may be Class D or Class E airspace. Unless otherwise authorized, each person must establish two-way radio communications with the ATC facility providing air traffic services prior to entering the airspace and thereafter maintain those communications while in the airspace. No separation services are provided to VFR aircraft.

CLASS E: Generally, if the airspace is not Class A, Class B, Class C, or Class D, and it is controlled airspace, it is Class E airspace. Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. When designated as a surface area, the airspace will be configured to contain all instrument procedures. Also in this class are Federal airways, airspace beginning at either 700 or 1,200 AGL used to transition to/from the terminal or en route environment, en route domestic, and offshore airspace areas designated below 18,000 feet MSL. Unless designated at a lower altitude, Class E airspace begins at 14,500 MSL over the United States, including that airspace overlying the waters within 12 nautical miles of the 48 contiguous States and Alaska, up to, but not including 18,000 MSL, and the airspace

above FL 600.

Cyclone. An atmospheric closed circulation rotating counter-clockwise in the Northern Hemisphere.

-E-

Extratropical cyclone. A synoptic scale low pressure system whose primary energy source is baroclinic.

Eye. The relatively calm center of the tropical cyclone that is more than one half surrounded by wall cloud.

Eye Wall. An organized band of cumuliform clouds immediately surrounding the center of a tropical cyclone. Eye wall and wall cloud are used synonymously.

-H-

High-Density/High-Accuracy (HD/HA) Data. Those data provided by automated airborne systems--WP-3s or WC-130s equipped with the Improved Weather Reconnaissance System.

Hurricane/Typhoon. A warm-core tropical cyclone in which the maximum sustained surface wind speed (1-min mean) is 64 kt (74 mph) or more.

Hurricane/Typhoon/Tropical Cyclone Season. The portion of the year having a relatively high incidence of hurricanes/typhoons/tropical cyclones. The seasons for the specific areas are as follows (Note: tropical cyclones can occur during any month of the year in the Western Pacific.):

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|--------------------------------------------------|-----------------------|
| • Atlantic, Caribbean,
and the Gulf of Mexico | June 1 to November 30 |
| • Eastern Pacific | May 15 to November 30 |
| • Central Pacific | June 1 to November 30 |
| • Western Pacific | July 1 to December 31 |

Hurricane Warning Offices. The designated hurricane warning offices follow:

- Tropical Prediction Center/National Hurricane Center, Miami, Florida
- Central Pacific Hurricane Center, Honolulu, Hawaii

Hurricane/Typhoon Warning. An announcement that sustained winds of 64 knots (74 mph or 119 km/hr) or higher are expected within the specified coastal area within 24 hours. A hurricane or typhoon warning can remain in effect when dangerously high water or a combination of dangerously high water and exceptionally high waves continue even though winds may be less than hurricane or typhoon force.

Hurricane/Typhoon Watch. An announcement that sustained winds of 64 knots (74 mph or 119 km/hr) or higher are possible within the specified coastal area within 36 hours except for the western North Pacific, where typhoon conditions may occur within 48 hours.

-I-

ICAO-Controlled Airspace. An airspace of defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification. (Note: Controlled airspace is a generic term which covers Air Traffic Service airspace Classes A, B, C, D, and E).

-M-

Major Hurricane. A "major" hurricane is one that is classified as a Category 3 or higher.

Maximum 1-Min Sustained Surface Wind. When applied to a particular weather system, refers to the highest 1-minute average wind (at an elevation on 10 meters with an unobstructed exposure) associated with that weather system at a particular point in time.

Micronesia. An area defined by the Commonwealth of the Northern Marianas Islands, the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands.

Miles. The term "miles" used in this plan refers to nautical miles (nm) unless otherwise indicated.

Mission Identifier. The nomenclature assigned to tropical and subtropical cyclone aircraft reconnaissance missions for weather data identification. It's an agency-aircraft indicator followed by a Chief, Aerial Reconnaissance Coordination, All Hurricanes (CARCAH) assigned mission-system indicator.

-N-

National Operations Manager. Supervisor in charge of the overall operation of the Air Traffic Control System Command Center.

-P-

Present Movement. The best estimate of the movement of the center of a tropical cyclone at a given time and at a given position. This estimate does not reflect the short-period, small-scale oscillations of the cyclone center.

-R-

Reconnaissance Aircraft Sortie. A flight that meets the requirements of the tropical cyclone plan of the day.

Relocated. A term used in an advisory to indicate that a vector drawn from the preceding advisory position to the latest known position is not necessarily a reasonable representation of the cyclone's movement.

-S-

Storm Surge. An abnormal rise in sea level accompanying a hurricane or other intense storm, and whose height is the difference between the observed level of the sea surface and the level that would have occurred in the absence of the cyclone. Storm surge is usually estimated by subtracting the normal or astronomic tide from the observed storm tide.

Storm Tide. The actual level of sea water resulting from the astronomic tide combined with the storm surge.

Subtropical Cyclone. A non-frontal low pressure system that has characteristics of both tropical and extratropical cyclones. This system is typically an upper-level cold low with circulation extending to the surface layer and maximum sustained winds generally occurring at a radius of about 100 miles or more from the center. In comparison to tropical cyclones, such systems have a relatively broad zone of maximum winds that is located farther from the center, and typically have a less symmetric wind field and distribution of convection.

Subtropical Depression. A subtropical cyclone in which the maximum sustained surface wind speed (1-min mean) is 33 knots (38 mph) or less.

Subtropical Storm. A subtropical cyclone in which the maximum sustained surface wind speed (1-min mean) is 34 knots (39 mph) or higher.

Super Typhoon. A "super" typhoon is one that is classified as having winds of 130 knots (150 mph) or greater.

Sustained Surface Wind. The 1-minute averaged wind at the 10-meter elevation with an unobstructed exposure.

Synoptic Surveillance (formerly Synoptic Track). Weather reconnaissance mission flown to provide vital meteorological information in data sparse ocean areas as a supplement to existing surface, radar, and satellite data. Synoptic flights better define the upper atmosphere and aid in the prediction of tropical cyclone motion and intensity.

-T-

Traffic Management Specialist. ATCSCC personnel responsible for the active management of

traffic throughout the National Airspace System.

Tropical Cyclone. A warm-core, non-frontal synoptic-scale cyclone, originating over tropical or subtropical waters, with organized deep convection and a closed surface wind circulation about a well-defined center.

Tropical Cyclone Plan of the Day. A coordinated mission plan that tasks operational weather reconnaissance requirements during the next 1100 to 1100Z UTC day or as required, describes reconnaissance flights committed to satisfy both operational and research requirements, and identifies possible reconnaissance requirements for the succeeding 24-hour period.

Tropical Depression. A tropical cyclone in which the maximum sustained surface wind speed (1-min mean) is 33 kt (38 mph) or less.

Tropical Disturbance. A discrete tropical weather system of apparently organized convection--generally 100 to 300 mi in diameter--originating in the tropics or subtropics, having a nonfrontal migratory character, and maintaining its identity for 24 hours or more. It may or may not be associated with a detectable perturbation of the wind field.

Tropical Storm. A tropical cyclone in which the maximum sustained surface wind speed (1-min mean) ranges from 34 kt (39 mph) to 63 kt (73 mph).

Tropical Storm Warning. An announcement that sustained winds of 34 to 63 knots (39 to 73 mph or 63 to 118 km/hr) are expected within the specified coastal area within 24 hours.

Tropical Storm Watch. An announcement that sustained winds of 34 to 63 knots (39 to 73 mph or 63 to 118 km/hr) are possible within the specified coastal area within 36 hours except for the western North Pacific, where tropical storm conditions may occur within 48 hours.

Tropical Wave. A trough or cyclonic curvature maximum in the trade-wind easterlies. The wave may reach maximum amplitude in the lower middle troposphere or may be the reflection of an upper tropospheric cold low or equatorial extension of a middle latitude trough.

Tropical Weather System. A designation for one of a series of tropical weather anomalies. As such, it is the basic generic designation, which in successive stages of intensification, may be classified as a tropical disturbance, wave, depression, storm, or hurricane.

Typhoon/Hurricane. A warm-core tropical cyclone in which the maximum sustained surface wind speed (1-min mean) is 64 kt (74 mph) or more.

-U-

Uncontrolled Airspace (Class G Airspace). That portion of the airspace that has not been

designated as Class A, Class B, Class C, Class D, or Class E and within which Air Traffic Control has neither the authority nor the responsibility for exercising control over air traffic.

-V-

Vortex Fix. The location of the surface and/or flight level center of a tropical or subtropical cyclone obtained by reconnaissance aircraft penetration. See Center Fix, also.

-W-

Wall Cloud. An organized band of cumuliform clouds immediately surrounding the center of a tropical cyclone. Wall cloud and eye wall are used synonymously.

