Weather Avoidance – Philippines

Background

The Philippines sit astride the typhoon belt and the country suffers an annual onslaught of dangerous storms from July through October. These are especially hazardous for northern and eastern Luzon and the Bicol and Eastern Visayas regions, but Manila gets devastated periodically as well.

Bagyo is the local term to any tropical cyclone in the Philippine Islands. An average of 20 typhoons per year enters the PAR (Philippine Area of Responsibility). An average of 9 per year made landfall or crossed the Philippines. In 1993, a record 19 typhoons made landfall in the country making it the most in one year. The least amounts of typhoons per year where 4 during the years 1955, 1958, 1992 and 1997.

Typhoons are categorized into four types according to its wind speed by the PAGASA. All tropical cyclones, regardless of strength, are named by PAGASA.

- **Tropical Depressions** have maximum sustained winds of between 55 kilometers per hour and 64 kilometers per hour near its center.
- **Tropical Storms** have maximum sustained winds of 65 kilometers per hour and 119 kilometers per hour.
- **Typhoons** achieve maximum sustained winds of 120 kilometers per hour to 185 kilometers per hour.
- **Super Typhoons** having maximum winds exceeding 185 kilometers per hour.

Deadliest Storm

The deadliest typhoon to impact the Philippines was Typhoon Uring (Thelma) in November 1991.

Strongest Typhoons

The highest wind velocity recorded for a typhoon that crossed the Philippines was recorded for a typhoon in Virac on November 30, 2006 when Typhoon Reming (Durian) had a peak gust of 320 km/h.

In cooperation with Flight Operations following procedure has been set up allowing us to operate flights into MNL with a contingency plan in case the situation at destination deteriorates and landing is not possible.

Instruction

Typhoon warnings are published by the authorities of the respective country. They are categorized in CONDITIONS which will provide a guideline on the situation. This information however does not come automaticatlly, it must be requested. The **Duty Dispatcher** must check with the Airport Manager who will be able to provide the information.

8.17.2.2 Typhoon Warnings

The warnings are classified under conditions as detailed below;

CONDITION I	Typhoon within 24 / 48 hrs
CONDITION II	Typhoon within 24 hrs. Possibility of forecast wind component of more than 30 kts.
CONDITION III	Typhoon within 12 hrs or Imminent. Possibility of surface wind of 50 kts or more and the cross wind component of more than 30 kts.
CONDITION IV	Surface wind reduced to less than 50 kts with crosswind component less than 30 kts. After station passage. The onset of condition IV can be taken as the termination of the typhoon condition
Note: Once Condition III is declared, risk of damage must seriously be assumed. The Commander and the station manager must also take precautions to ensure the safety of aircraft during condition I and II. The Commander of an aircraft that is about to divert or already diverted to an alternate airport must keep a constant communication with NOC via ACARS or SAT PHONE or Land Line if available depending on the Typhoon conditions.	

At planning stage the dispatcher will check if a typhoon is in the vicinity of MNL. Below chart shall provide a distance guideline.

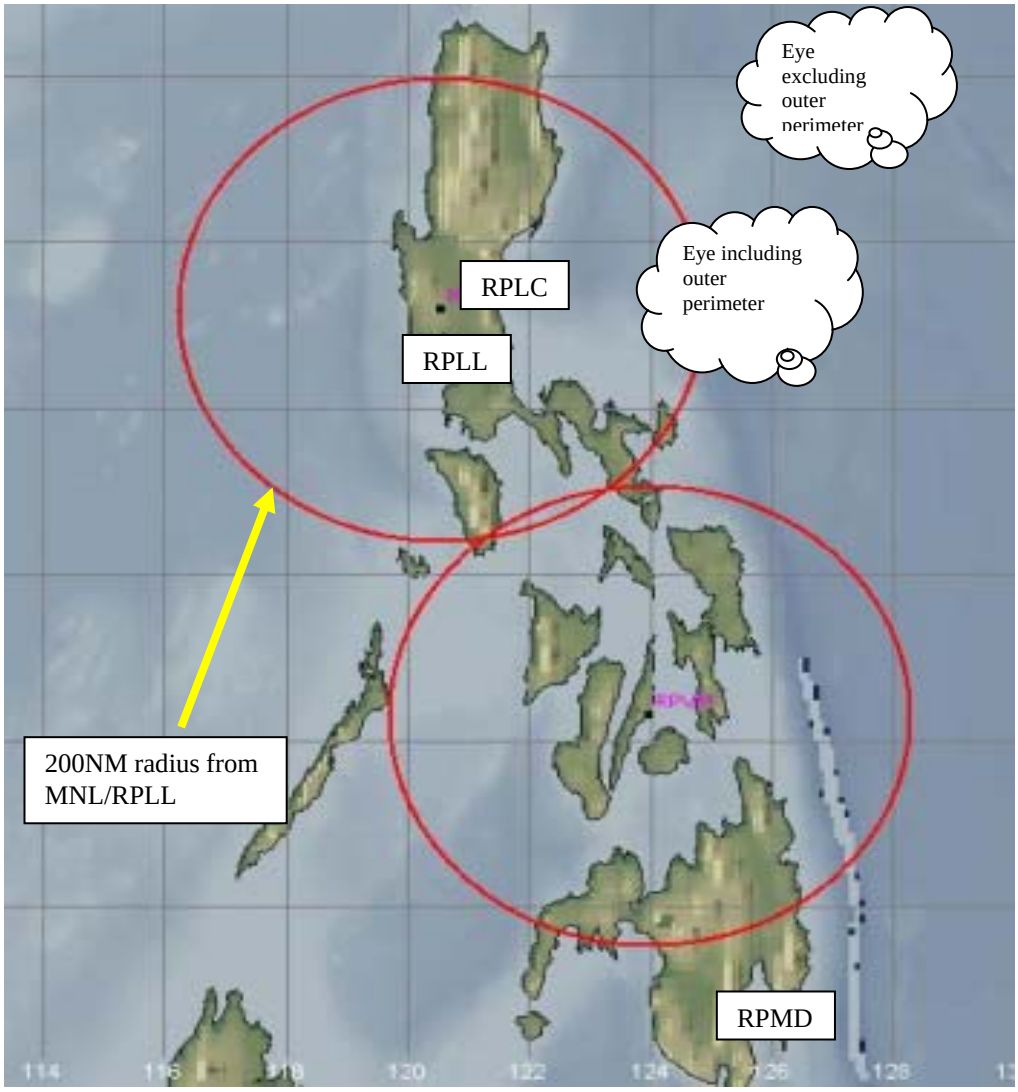
1. Alternate RPLC must be planned if a typhoon is outside the 200nm radius of Manila, subject to the normal Alternate Weather criteria.

2. Alternate RPMD must be planned if a typhoon is inside the 200nm radius of Manila, subject to the normal Alternate Weather criteria.

   Note: RPMD should be considered for fuel planning purposes only since it will not always be available as a suitable / adequate alternate. The fuel loaded for RPMD however allows us to use other primary alternates such as Lapu-Lapu (CEB / RPVM) or Hong Kong (HKG / VHHH).

Flight Explorer will help to establish if a typhoon is inside our outside the above radius.

The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) publishes weather updates on a regular basis through their website http://www.pagasa.dost.gov.ph/. This provides a good assistance and should be considered.



Flight Watch

It is necessary to carry out a thorough flight watch as these flights are very critical. The Dispatcher must ensure that he always knows where the aircraft is and he/she must stay current on the weather situation.

Contingency Plan

BKK has been chosen as the diversion airport in case a safe operation into Manila is not possible. Since TFR is used for all MNL flights, we have identified 4 possible routes.
At the decision point Flight Dispatch together with the Operating Crew and the NOC Duty Manager will determine if it is safe to continue or if the aircraft should turn back to BKK for refuelling. For that reason it is necessary to provide the crew with a decision point plan based on below information. This flight plan should be given for information only and must not be filed.

Possible Airways	Associated Decision Points	Distance from BKK	Remaining Distance to MNL	Planned Alternate	Fuel required to Destination and BKK
L628	DAMEL	639 NM	570 NM	**DVO**	DP DAMEL TO RPLL MIN 22.0kgs DP DAMEL TO VTBS MIN 20.1kgs
A1	IKELA	741 NM	872 NM	**DVO**	DP IKELA TO RPLL MIN 27.9kgs DP IKELA TO VTBS MIN 21.6kgs
A202	SIKOU	763 NM	736 NM	**DVO**	DP SIKOU TO RPLL MIN 24.7kgs DP SIKOU TO VTBS MIN 21.6kgs
N500	MIMUX	667 NM	634 NM	**DVO**	DP MIMUX TO RPLL MIN 23.6kgs DP MIMUX TO VTBS MIN 20.3kgs
G474 (L628)	VIBUN	283 NM	928 NM	**CRK**	DP VIBUN TO RPLL MIN 19.5kgs DP VIBUN to VTBS MIN 14.6kgs
A1	UBL	262 NM	1351 NM	**CRK**	DP UBL TO RPLL MIN 27.8kgs DP UBL TO VTBS MIN 13.7kgs
A202	SAV	297 NM	1195 NM	**CRK**	DP SAV TO RPLL MIN 24.2kgs DP SAV TO VTBS MIN 14.2kgs
R468 (N500)	PNH	286 NM	1015 NM	**CRK**	DP PNH TO RPLL MIN 22.0kgs DP PNH TO VTBS MIN 14.3kgs

Always stay in touch with the operating crew and make sure that they receive regular updates.