International Civil Aviation Organization

The Twenty-First Meeting of the APANPIRG ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/21)

Bangkok, Thailand, 27 June – 01 July 2011

Agenda Item 6: Provision of ATM/AIS/SAR in the Asia/Pacific Region, including associated CNS matters

GLOBAL HAWK PACIFIC OPERATIONS

(Presented by the United States of America)

SUMMARY

This paper provides the status of United States Pacific Air Force Global Hawk Remotely Piloted Aircraft (RPA)/Unmanned Aircraft Systems (UAS) (RQ-4) aircraft operations in the Pacific Region.

This paper relates to –

Strategic Objectives:
*A: **Safety** – Enhance global civil aviation safety*

Global Plan Initiatives:
GPI-6 Air traffic flow management
GPI-9 Situational awareness

1. INTRODUCTION

1.1 The United States Pacific Air Force (PACAF) in cooperation with the United States Department of Defense has based the Global Hawk Remotely Piloted Aircraft in the Pacific Region. These aircraft provide high altitude, long endurance (HALE) surveillance and reconnaissance capability in support of regional stability initiatives.

1.2 Three Global Hawk aircraft currently operate out of Andersen Air Force Base, Guam located in the Marianas Islands. In accordance with standing Federal Aviation Administration policy, access to the United States National Airspace System (NAS) is provided under an approved Certificate of Authorization (COA). This COA utilizes a Temporary Flight Restriction (TFR) that allows the Global Hawk to transition to and from Class A airspace.

2. DISCUSSION

2.1 The Global Hawk RPA files an international IFR flight plan, flies standard ATS routes to the maximum extent possible and provides for standard ATC communications, radar identification and control instruction methodology with ANSPs. The Global Hawk aircraft system comprises of configurable elements including associated remote pilot stations and required C2 links such as KU SATCOM. Other features include, flight planning software, health monitoring, and launch and recovery elements (LRE). The LRE located at Andersen Air Force Base provides Line of Sight launch and recovery capability and transitions C2 and communications to a remote pilot ground

station at Beale Air Force Base California for Beyond Line of Sight (BLOS) enroute flight at or above FL500. Navigation is provided through a certified RNAV/GPS system.

2.2 Recent Global Hawk flight operations include successful Search and Rescue missions of a lost vessel near the eastern Manila FIR and over twenty five long endurance flights in the Fukuoka FIR in support of Operation TOMODACHI following the devastating earthquake and tsunami. Pacific Air Forces (PACAF) is currently working with the Korean Ministry of Land, Transport and Maritime Affairs on an application for operational approval for the Global Hawk in the Incheon FIR in support of security initiatives.

2.3 Pacific Air Forces is diligently coordinating numerous regional emergency and divert locations in the unlikely event of such a situation. Several locations have been negotiated and secured in the spirit of ICAO Civil/Military Cooperation initiatives and Doc 9554 (*Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations)* describing coordination between military units and ATS units and the requirements to establish and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft.

2.4 Pacific Air Forces also acknowledges the March 14, 2011 ICAO Circular 328-AN/190 *Unmanned Aircraft Systems* and issues relating to due regard for the safety of navigation of civil aircraft, safe integration of UAS into non-segregated airspace, licensing and medical qualification of UAS crew, technologies for detect and or sense and avoid systems, frequency spectrum (including protection from unintentional or unlawful interference). Development of separation standards from other aircraft, Standards and Recommended Practices (SARPs), with supporting Procedures for Air Navigation Services (PANS) to improve routine operation of UAS throughout the world in a safe, harmonized and seamless manner comparable to that of manned operations are paramount.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper and encourage open dialogue with all states regarding development of SARPS and PANS for integration of RPAs in the region.

…….