



Antigua and Barbuda National ASBU PLAN

**Shenneth Phillips ATS Operations Officer
Lorraine Davis ATS Examining Officer**

**ICAO SIP Workshop on ASBU Methodology
(Mexico, 22-26 July 2013)**

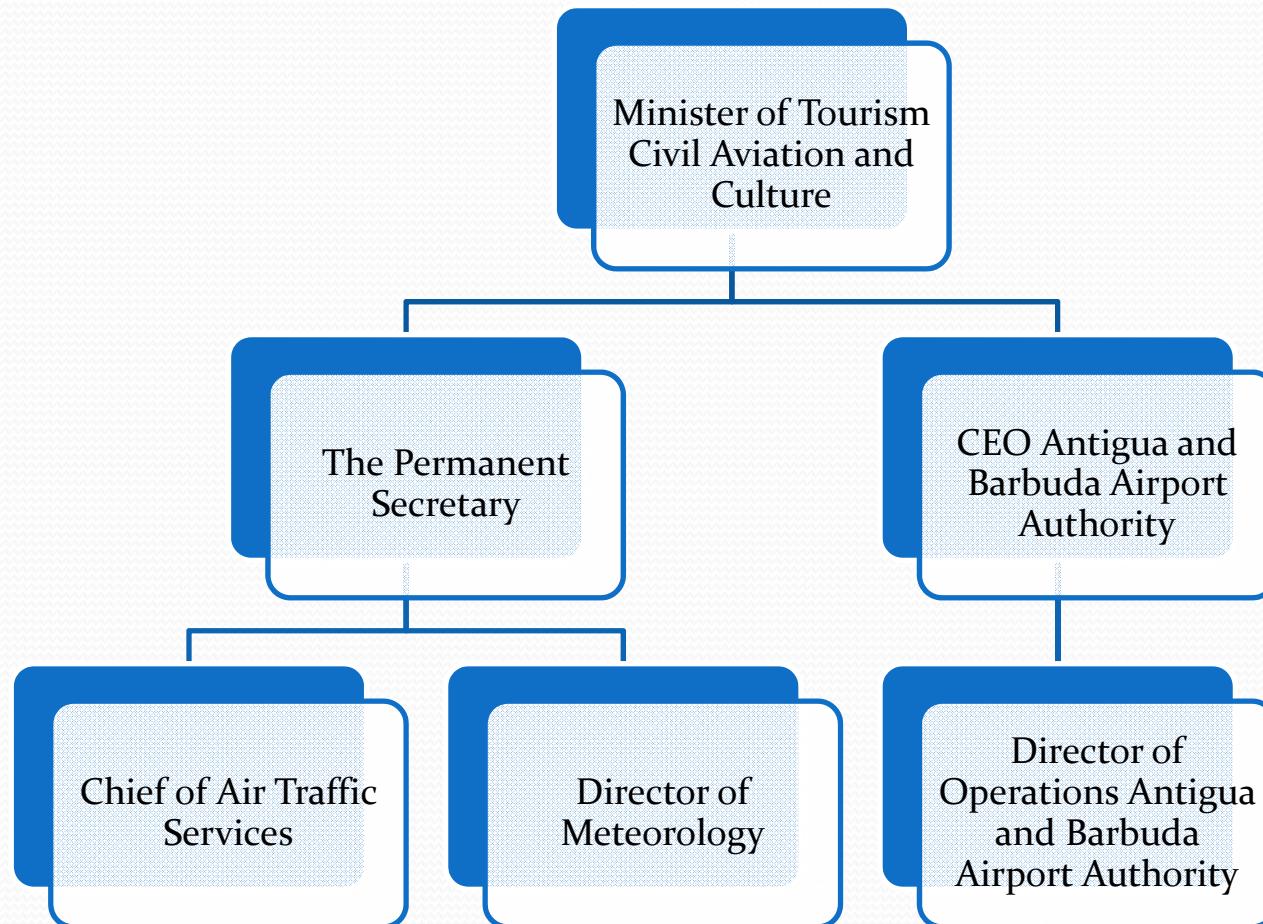
Organizational Structure

- Air Navigation Services are provided by the Government of Antigua and Barbuda through the Ministry of Tourism & Civil Aviation. The Antigua and Barbuda Airport Authority was established in 2006 and provides supporting service such as Aerodrome development and maintenance.

Organizational Structure cont.

The departments which provide air navigation service on behalf of the Government are Air Traffic Services and Meteorology

ANSP Organization Chart





Growth Indicator: Traffic-operations

Currently V.C. Bird handles on average 4480 flights per month (150 per day). These figures include landings, departures and overflights with a mixture of IFR and VFR flights.

Traffic-operations

- Aircraft Movement for 2010
 - Commercial 31,224 (+ 3%)
 - General Aviation 4,981 (-24%)
 - Overflights 18,817 (+ 3%)
- Aircraft Movement for 2011
 - Commercial 29,970 (-4%)
 - General Aviation 4,263 (-17%)
 - Overflights 20,220 (+7%)

- **Aircraft Movement for 2012**
 - Commercial **28,106** (-7%)
 - General Aviation **5,331** (+20%)
 - Overflights **20,078** (-1%)

Operations Summary

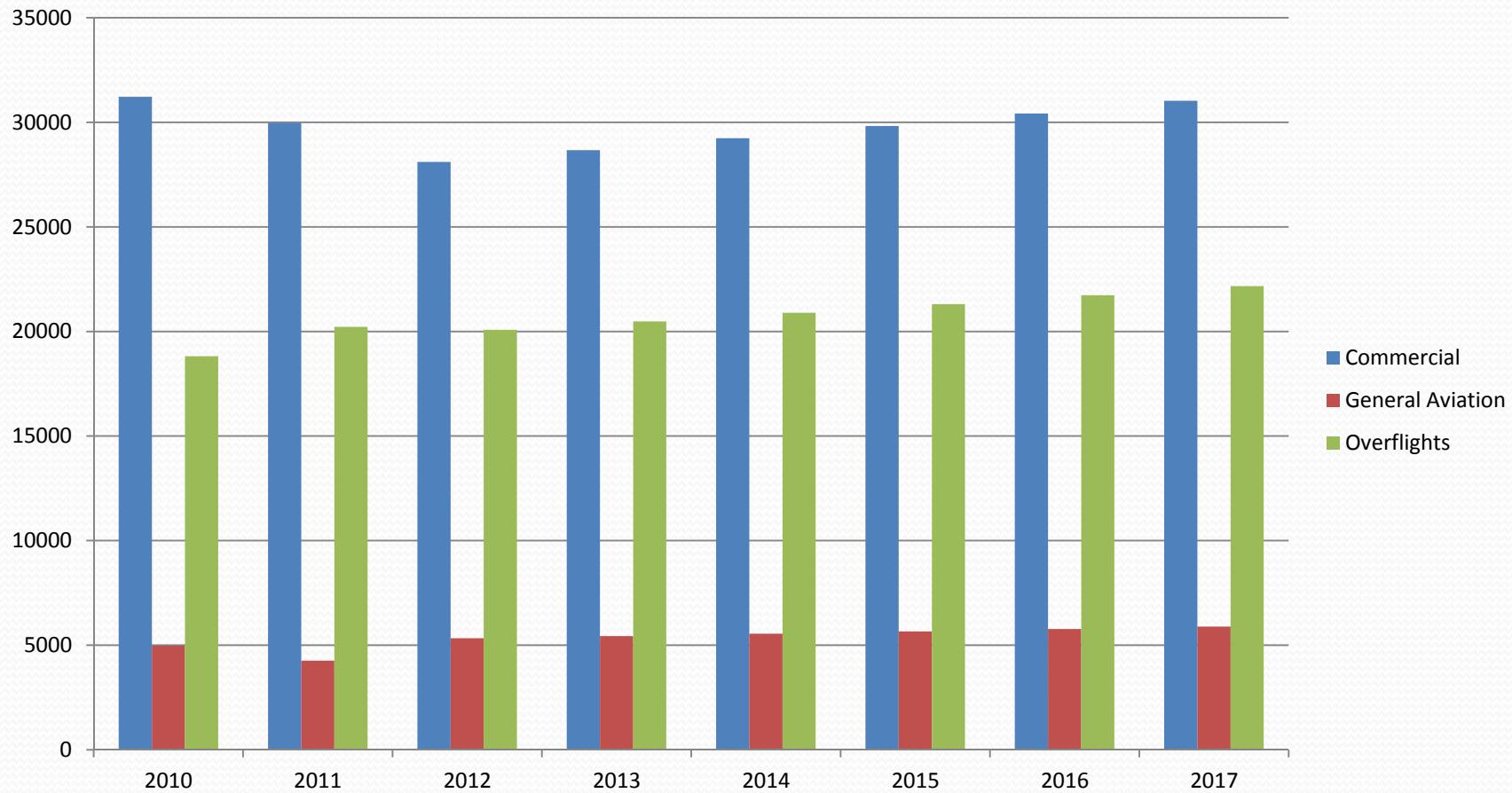
- While the figures indicate a drop in commercial flights there has been an increase in general aviation. In addition, there has been an increase in overflights (*traffic transitting the V. C. Bird airspace below FL240*) from 2010 to 2012 of 2.3%. Currently, there are no fees charged for overflights, thus the implementation of fees can be a significant revenue stream.

Forecast for next 5 years

Assuming a 2% growth with promised completion of new terminal and aggressive tourism marketing:

2013:	28,668 com:	5,438 GA:	20,480 OvFL
2014:	29,241 com:	5,547 GA:	20,890 OvFL
2015:	29,826 com:	5,658 GA:	21,307 OvFL
2016:	30,422 com:	5,771 GA:	21,734 OvFL
2017:	31,031 com:	5,886 GA:	22,168 OvFL

Past Movements & Projections





State's Air Navigation Infrastructure

- **TMA Structure**

V.C. Bird has a TMA that extends laterally to 70 miles to the Northwest, 52 miles to the North and 27 Miles to the South.

Vertical limits from 3000 ft. to FL240.

Control zone from surface to 3000ft.

The TMA includes the islands of Barbuda, St. Kitts, Nevis, and Montserrat.

Aerodromes

- St. Kitts – Robert L. Bradshaw – small TMA with a vertical limit of FL65 and a lateral limit of approximately 15 miles and includes Nevis
- Nevis – Vance Amory
- Montserrat – John A. Osbourne - operates from sunrise to sunset.
- Barbuda – has two uncontrolled airfields Codrington (state owned) and Coco Point (privately owned)



Air Navigation Services & Responsibilities

Air Traffic Management

- Air Traffic Control Service
- Aeronautical Information Service

Meteorological Services

Airlines and Operators

- *Leeward Islands Air Transport - LIAT*
- *American Airlines*
- *Air Canada*
- *US Airways*
- *FBO 2000*
- *Express Handlers*
- *ASA Airport Services Antigua LTD*

CNS Infrastructure and Automation

- **Communications** – VHF radios for air ground communication coverage of 200mls
- Automatic Terminal Information Service (ATIS) which covers a range of 150 NM,
- Regional digital network for inter-island controller to controller voice and data communication
- Inter-unit communications system for controller to controller communications.
- **Navigation** – 4 ground radio NAV AIDS (1 VOR; 1 DME; 2 NBD's.)
- **Surveillance** – Radar coverage to be available by October 2013



Technical Challenges

- **Communications**

Upgrade and modernization of the existing system in use at V.C. Bird, is necessary as it has become outdated and no longer supported with spare parts by the manufacturer. This involves the replacement of radio for air ground communication, consoles and telecommunication equipment used for coordination of traffic.

- Funding for new communication systems has been approved for 2014

Technical Challenges CONT.

- **Navigation**

The current VOR is old and needs to be replaced.
Replacement scheduled for 2014

- **Surveillance**

The upgrading process for the radar has been slow.
This should have been completed at the end of 2012,
however this is slated to be completed by the end of
October, 2013.



Operational Challenges

- Funding for the continual training and development of human resource i.e. refresher training.



Economic Concerns

- Due to the economic downturn, it has been difficult to get the Government to give a higher priority to Air Navigation Services.



Stakeholders needs and Requirements

- Less holding time in the air and on the ground to reduce fuel burn.

Performance Review and Gaps

- Use of VOR procedures are time consuming
 - Introduction of RNAV Approaches has been delayed and is expected to be implemented at the middle of 2014
- Peak period conjestion and inadequate parking positions contributes to the institution of flow control and excessive delays especially during the peak season (November to April)
 - Staggered airline schedules
 - Ramp expansion needed
- Single runway operation - no high speed taxiway
- High bird concentration in the vicinity



ASBU Module Review

- (See word document table)

Air Navigation Report Form (ANRF)

- ANRF completed for two selected ASBU modules

Bo-30 DAIM

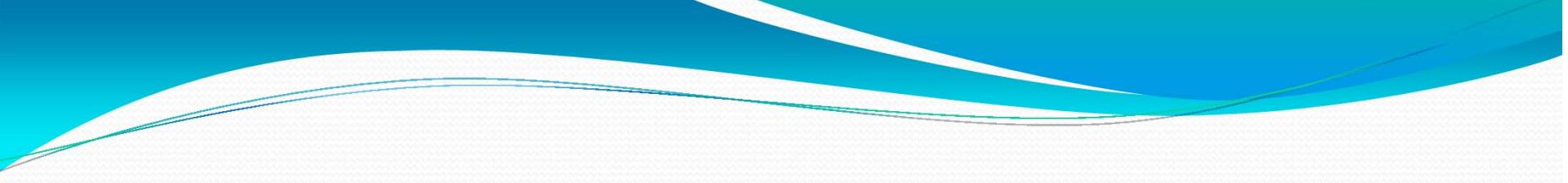
Bo-10 FRTD

(See word documents)



Step 4: Monitoring

See Report Form



Conclusions

- The content of the ASBU workshop greatly assisted us to further understand the ASBU concept and has helped us in the development of the state's ANP.
- The hands-on exercises were very helpful
- We do appreciate being here and we thank ICAO for the invitation.

THANK YOU - ICAO