Regional Review: Mexico and the Caribbean

Tuesday, March 18 | 8:15 a.m. – 9:45 a.m.

PRESENTED BY:

Rick Ballew: Supervisor, Flight Operations Rockwell Collins
Eric Carson: Pilot, AT&T Flight Operations
Guy Gribble: General Manager, International Flight Resources
Rob Turpin: Supervisor, Flight Operations Rockwell Collins
The Caribbean
From a Pilot's Perspective
Tuesday 18 March 2014 | 0800-0825

PRESENTED BY:
Guy Gribble
General Manager, International Flight Resources
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<th>Caribbean Operations</th>
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<td>Countries, Nations, SA, CW, OT</td>
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Caribbean Operations

Communications

VHF Primary
- Good coverage, LR transmitters
- 121.5 Guard 123.45 Air-to-Air Common
- ARINC 130.7 (Mexico)
- Phone patch capability

HF Secondary
- SELCAL, 14CFR 91.511
- 2182, 4125kHz Guard
- Panama Radio, 6649, 2944kHz
Caribbean Operations
Communications

HF Long Distance Operational Control (LDOC) Coverage Improvement in Western Pacific Region

ARINC, Inc. has upgraded the HF LDOC coverage in the Western Pacific. The station located on Guam operates on a common group of HF LDOC frequencies operated by ARINC at other Pacific-based radio sites. The LDOC frequencies are listed on current aeronautical charts and in other aeronautical publications for the Pacific Ocean. The site is controlled and operated by the ARINC San Francisco Communications Center. Effective 1 June 2009, the LDOC frequencies are:

<table>
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<th>Pacific LDOC</th>
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<tr>
<td>3494</td>
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<tr>
<td>6640</td>
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<tr>
<td>8933</td>
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<tr>
<td>11342</td>
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<td>13348</td>
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<tr>
<td>17925</td>
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<td>21964</td>
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1. 121.5 MHz and 243.0 MHz. Both have a range generally limited to line of sight. 121.5 MHz is guarded by direction-finding stations and some military and civil aircraft. 243.0 MHz is guarded by military aircraft. Both 121.5 MHz and 243.0 MHz are guarded by military towers, most civil towers, FSSs, and radar facilities. Normally ARTCC emergency frequency capability does not extend to radar coverage limits. If an ARTCC does not respond when called on 121.5 MHz or 243.0 MHz, call the nearest tower or FSS.

2. 2182 kHz. The range is generally less than 300 miles for the average aircraft installation. It can be used to request assistance from stations in the maritime service. 2182 kHz is guarded by major radio stations serving Coast Guard Rescue Coordination Centers, and Coast Guard units along the sea coasts of the U.S. and shores of the Great Lakes. The call “Coast Guard” will alert all Coast Guard Radio Stations within range. 2182 kHz is also guarded by most commercial coast stations and some ships and boats.
14 CFR 91.511

Exception

Single LRN + no HF if:

- Gulf of Mexico
- Caribbean Sea and
- Atlantic Ocean West of a line...

and

Flight conditions and the aircraft's capabilities are such that no more than a 30-minute gap in two-way radio very high frequency communications is expected to exist.
Caribbean Operations

Communications

• SATCOM Voice
  – Numbers on charts?
  – Distress and/or urgency only
  – NYC ARINC  631-244-2492
  – IMARSAT 436623

• Replacement for HF ?
  – MMEL Policy Letter #106, 18JAN12
Caribbean Operations

Communications

• DATALINK
  – New York Oceanic, "KZHY"
    • CPDLC, ADS-C
    • SELCAL Check
    • No CPDLC Posit Report at crossing
  – CENAMER, "MHCC"
    • CPDLC, ADS-C Trials
    • SELCAL
    • Full Voice reporting
Caribbean Operations

Communications

- **DATALINK**
  - Mazatlan, "MMMX"
    - CPDLC, ADS-C Trials
    - SELCAL
    - Full Voice reporting
  - Picaro, "TTZP"
    - CPDLC, ADS-C Trials
    - SELCAL
    - Full Voice reporting (via NYC AirInc)
Caribbean Operations

Communications

- Expect no AFIS/AirInc PDC or abbreviated read backs
- **Spanish** is primary language by about 60% of the population
  - **English** is spoken in Belize, Jamaica, Barbados, Trinidad and Tobago, Guyana, Antigua and Barbuda, St. Lucia, Dominica, Grenada, St. Vincent and the Grenadines, Saint Kitts and Nevis, and the Bahamas
  - **French** is the predominate language in Haiti and Martinique, Guadeloupe, and French Guiana
  - **Dutch** is spoken in Curaçao, Aruba, St. Maarten and Suriname
- ICAO Phraseology and procedures are VERY Helpful
Caribbean Operations

Navigation

• Class I
  – VOR or NDB
  – 2,000w Extended Range?

• Class II
  – Plotting required?
  – AC 90-70A vs. FAA Order 8900

• LRNS
  – WGS-84 widespread
  – On some routes a requirement
  – GNSS Predictions?
  – RNP (RNAV)-10 vs. Radar Coverage
Caribbean Operations

• Routes, Florida to/from Puerto Rico
  – Bi-directional airways, no SLOP
  – Not part of WATRS
  – Class 1, VHF Comm, Radar Monitoring
  – Enroute chart required w/ routes depicted
  – TCAS required if SSR Non-Radar

• Area Navigation Approval
  – Equipment Suffix 10a: C, D, G, I (FPL 2012)
  – 1.5hrs max between auto updates, INS
  – Ops Spec B34 and B50 w/ “Caribbean Sea Ops”, Part 135
  – AFM RNAV Approval, No LOA required for Part 91

Reproduced with permission of Jeppesen Sanderson, Inc. Not to be used for navigation.
Caribbean Operations

- Routes, Gulf of Mexico
  - Bi-directional airways, no SLOP
  - Class 1, VHF Comm, Radar Monitoring
  - Enroute chart required with routes depicted
  - TCAS required if SSR Non-Radar

- Area Navigation Approval
  - Equipment Suffix 10a: C, D, G, I (FPL 2012)
  - 1.5 hrs max between auto updates, INS
  - Ops Spec B34 and B50 with "Gulf of Mexico, High Offshore", Part 135
  - AFM RNAV Approval, No LOA required for Part 91

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Caribbean Operations

Surveillance

• Transponder
  – 7700, 7600, 7500 Worldwide
  – Last assigned code, If none = “2000”

• Datalink
  – New York Oceanic, "KZWW"
  – CENAMER, "MHCC", ADS-C Trials
  – Mazatlan, "MMMX", ADS-C Trials
  – Picaro, "TTZP", ADS-C Trials (NYC AirInc)
  – Houston ARTCC "Offshore", ADS-B
Numerous FIR boundary crossings in the Caribbean and Latin America—Pilots required to establish communications with next controlling agency—10 Minutes prior is normal—Vary 3 to 20 min prior to crossing—Refer to enroute notations on charts

Jamaican Preferred Routing, Transiting North/South—Refer to enroute notations on charts

All aircraft entering the Santo Domingo FIR must contact Santo Domingo ACC on freq 124.3 at least ten minutes prior to entry for ATC clearance.
Caribbean Operations

Air Traffic Management

- General Oceanic: None
- Weather Deviation: None
- Interception: None "Main purpose of Colombian AF"
- RVSM: Non-RVSM w/ prior Coordination
- Wake Vortex/Turbulence: None
- ETP/Point of Safe Return: SOP ?
- Long Range Navigation Failure: SOP ?
- Lost Communication: None
- Ditching at Sea: SOP and/or drills ?
- SAR Procedures: SOP, SMS Resources
- Volcanic Ash: SOP ?
- SLOP: Some
Caribbean Operations

- Pilots should expect:
  - No VFR at night
  - Non-Radar handling
  - “Say radial and DME from...”
  - ATC may ask for your registration number so they can bill for ATC charges
  - VHF Voice Position Reporting
  - “Say estimate for...”
  - ATC Speed Limits?
  - TMA Speed limits
    - 250 KIAS/10,000 MSL

Air Traffic Management

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Caribbean Operations

Air Traffic Management

• Pilots should expect:
  – QNH/QNE in hPa
    • "Descending Flight Level 120 on 1011 HectoPascals"
    • TL varies from 040 to 190
• Situational Awareness IRT terrain and obstacles
• W/O Radar there are no MVA's
  – On published route or defined altitude
Caribbean Operations

Air Traffic Management

- Altitude Restrictions
- MSA..................MSA
- MEA..................2000
- Grid MORA........17\textsubscript{2}
- MOCA............."1800T"
- MORA............."2200a"

TJ(R)-7105
SFC-13000

"13\textsubscript{5}"
Caribbean Operations

- Pilots should expect:
  - RNAV Arrival
    - Only if specifically asked/filed for
    - Only with SSR Radar
  - ATIS over Navaid frequency
  - "Ready for Descent via the Esler 3 Arrival to Rwy 10"
  - "Lookn' fer lower"
  - Non-Radar Tower
  - "Field insight" vs. "Request Visual Approach Rwy XX"

- Less than 24hrs Operations
  - Non-Standard Alternate and Take-Off Mins

SIDs, STARS and Approaches

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Caribbean Operations

SIDs, STARS and Approaches

- Pilots should expect:
  - Fly the full procedure
    - DME Arcs, Base Turns and Procedure Turns
    - "RNAV (GNSS) Rwy XX"
    - "VOR DME 3, Rwy XX"
    - "Descent C VOR/DME Rwy XX"
    - Published Procedure vs. FMC programmed
  - Visibility reported in KM
    - Few RVR/CMV
Caribbean Operations
SIDs, STARS and Approaches

• Pilots should expect:
  – Visibility AND Ceiling required for straight-in
    • Dominican Republic, Guatemala
    • Belize, Costa Rica, Panama, Nicaragua
  – PANS-Ops Designed procedures
    • Base Turn vs. Teardrop (turn point)
    • Entry Sector vs. Alignment Maneuvering
    • Maneuvering speeds and Protected Airspace
    • Mixed Procedure?
  – 250KIAS@10,000MSL, Relief from ATC?
    • Specific procedure speed limitation?
Caribbean Operations

PANS-Ops vs TERPS

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Caribbean Operations

SIDs, STARS and Approaches
Caribbean Operations

Airport Operations

- Fuel
  - Good Quality
  - Availability with Airline priority?

- Runways
  - Small Clearways
  - Not grooved
  - Turn buttons

- Ramp Space
  - Availability?
  - Debris, towing equipment
  - Single Entry/Exit Points

PIREPS vs BA Reports

"Como?"
Caribbean Operations

• NOTAMS = Country Administrated
• ICAO "Key Word" Format?
• ICAO contractions?
• Problems with English translation
• Local Procedures in native language

Airport Operations
Caribbean Operations

Health and Security Considerations

• Yellow Fever
• Dengue Fever
Caribbean Operations

Health and Security Considerations

• Tuberculosis
Caribbean Operations
Health and Security Considerations
Caribbean Operations

Health and Security Considerations

International Travel Information

Why do you have so many different things?

We want you to be as prepared as possible before you go. We use a three-tiered system to help you make decisions about where, or sometimes if, to travel.

Country Specific Information

We provide Country Specific Information for every country of the world. For each country, you will find information like the location of the U.S. embassy and any consular offices; whether you need a visa; crime and security information; health and medical conditions; drug penalties; and localized hot spots. This is a good place to start learning about where you are going.

See all the Country Specific Information

Travel Alerts

We issue Travel Alerts for short-term events we think you should know about when planning travel to a country. Examples of reasons for issuing a Travel Alert might include an election season that is bound to have many strikes, demonstrations, disturbances; a health alert like an outbreak of H1N1; or evidence of an elevated risk of terrorist attacks. When these short-term events are over, we cancel the Travel Alert.
Caribbean Operations

Health and Security Considerations
Caribbean Operations

Terrain and Weather Considerations

- Mountainous Islands, Hispaniola and Jamaica
- Costal Plains, Panama
- Limestone Plateaus, Yucatan Peninsula
- Rugged Mountains, Costa Rica
Caribbean Operations
Terrain and Weather Considerations
Hurricane

Derived from huracán, the Spanish word for the Carib/Taino storm god, Juracán. At least partially derived from the Mayan creator god, Huracan. Huracan was believed by the Maya to have created dry land out of the turbulent waters.
Caribbean Operations

Terrain and Weather Considerations

"Hurricane Season" JUN-NOV
Caribbean Operations

- Volcanos
  - Puerto Rico to the south
  - Monserrat’s Soufriere Hills, 2013
  - Washington Volcanic Ash Advisory Center (VAAC)

- Earthquakes

Terrain and Weather Considerations
Caribbean Operations
Terrain and Weather Considerations

- Volcanos
  - Puerto Rico south – Monserrat’s Soufriere Hills, JUL, 95
  - http://www.ssd.noaa.gov/vaac
- Along Pacific Coast – Earthquakes
  - Pacific "Ring of Fire"
Caribbean Operations

Terrain and Weather Considerations

• Tropical Islands
• Swampy Coastlines
• Temperate Highlands
• Seasons
  – Dry (NOV-APR) “Hazy”
  – Rainy (MAY-OCT) “CB,TRW”
  – Hurricane (JUN-NOV) “Mudslide”
Caribbean Operations
Terrain and Weather Considerations
Caribbean Operations
Terrain and Weather Considerations

- Weather Observation Charts (ICAO Annex 3)
- For Flights between FL250 and FL630, at a minimum:
  - High Level Significant Weather Chart (FL 240 - FL630)
  - Mid Level Significant Weather Chart (FL 100 - FL450)
  - Forecast winds at FL 340 (250hPa)
Caribbean Operations
Terrain and Weather Considerations

• Terminal Aerodrome Forecast, TAF
  – Forecast Change Indicators
    • "BCMG"
    • “FM”
    • “PROB30”
    • “TEMPO” >50%
    • Visibility in Km?
Caribbean Operations
Panama Canal Expansion "PANAMAX" April 2015
"Caribbean"

English = kair-ə-bee-ən or kə-rib-ee-ən
Spanish = Kari ebay
Dutch = Kara ebeen
French = Kara ebeen

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