



## Worldwide International Procedures Recurrent – Detailed Syllabus

### Lesson Content

#### **MNPS (HLA), Oceanic, and Contingency Procedures Module**

##### General Information

- Flight Rules
- International Operations Manual
- FAA Sensitive International Areas
- ICAO Conflict Zone Repository
- Jeppesen Airways Manual
- Jeppesen Enroute Charts
- NAT References
- FAA Oceanic Operations Info
- NAT Information Sources
- Cockpit Reference
- NAT Ops Bulletin
- Authorizations
- Operational Approval
- Authorizations-USA
- Authorizations-EASA
- ICAO SARPs
- State Rules
- Insurance
- Video - Track Wise Introduction
- Important Concepts
- Abbreviations and Definitions

##### NAT HLA

- NAT Introduction
- NAT Region Timetable
- Lateral Navigation Requirements
- Lateral Navigation - GPS Consideration
- Longitudinal Navigation Requirements
- Mach Number Technique
- NAT HLA Lateral and Longitudinal Separation
- 3-Minute Rule
- ICAO Flight Plan

##### NAT HLA Route Options

- North American Routes
- NAR Example
- NAT Routing Options
- Special Routes
- What is the NAT OTS?
- NAT Organized Track System
- OTS - Track Messages
- Random Routes
- GOTA - Gander Oceanic Transition Area
- NAT Tracks - FAN 1/A
- NAT OTS Message - CPDLC
- NAT RLatSM
- NAT RLatSM - Tracks
- GOTA - ReDesign for RLatSM Implementation
- NAT OTS - CPDLC Mandates
- NAT OTS - CPDLC Flight Planning
- Europe Coast-In
- NAT Clearance Procedures
- OAC - Oceanic Area Control Center
- Video - An overview of the Shanwick Operation
- Clearance Procedures
- General
- Clearance Content
- Amended Clearance
- Reclearance
- Video - Reclearance Error
- Shanwick OCA - Clearance Request
- Shanwick OCA - Datalink
- Video - A Standard Westbound Flight
- Gander OCA - Clearance Delivery
- Gander OCA - Clearance Frequencies
- Gander OCA - Datalink
- New York OCA
- Santa Maria OCA
- Video - The Southeast Corner
- NAT Aeroradio Stations



## General Procedures

- ARINC 424 Oceanic Waypoint Format
- ARINC 424 Oceanic Waypoint Format - Verification
- ARINC 424 Oceanic Waypoint Format - Half Degree
- ARINC 424 Oceanic Waypoint Format - Half Degree - Jeppesen
- Loading the Nav System/FMS
- Position Reporting Procedures
- Position Reports - Waypoint Types
- Position Report Format
- Position Report Example
- Other Standard Air-to-Ground Messages
- 3-Minute Rule - Revised Estimate
- Video - Errors - When Things go Wrong
- Weather Reporting
- Large Height Deviations
- Conditional Clearances
- Video - Large Height Deviations
- SLOP - Strategic Lateral Offset Procedure
- Transponder Operation
- Enroute Wx - CAT
- Enroute Wx - Turbulence
- Enroute Wx - Turbulence Assessment
- Enroute Wx - Resource
- Equal Time Points
- ETP Calculation
- Point of Safe Return
- Wet Footprint
- ETOPS
- ETOPS On Flight Plans
- VOLMET
- METAR
- Altimeter Settings

## NAT Communication Procedures

- Communications - Concepts
- Communications - HF / VHF
- Communications - SELCAL
- HF Families
- HF Frequency Selection
- Monitor Frequencies

## SATCOM

- Communications Failure - General
- Comm. Failure Prior to Entering NAT Airspace
- Comm. Failure Prior to Exiting NAT
- Summary of Lost Comm. Procedures

## Contingency Actions

- Introduction
- SLOP
- Basic Contingency Procedures
- Weather Deviation Procedures
- ICAO Doc. 4444 - Introduction
- ICAO Doc. 4444 - General Procedures
- ICAO Doc. 4444 - Initial Actions
- ICAO Doc. 4444 - Subsequent Actions
- ICAO Doc. 4444 - ETOPS
- Video: Emergency on a Random Route above Tracks
- Video - Contingencies and Emergencies
- Loss of LRNS Capability - Introduction
- Loss of LRNS Capability
- Loss of All LRNS Capability

## Enhanced LRN Best Practices

- Introduction
- Preflight - Introduction
- Preflight - Master Flight Plan
- Preflight - Flight Plan Review
- Preflight - Position Initialization
- Preflight - Ramp Position
- Preflight - Checking Ramp Position
- Preflight - Database Routes
- Preflight - Flight Plan Route Entry
- Preflight - Flight Plan Route Verification
- Preflight - Master CFP Verification
- Preflight - Waypoint Verification
- Preflight - Upload Winds
- Preflight - Groundspeed Check
- Climb Out - Transition Altitude
- Climb Out - Manually Compute ETAs
- Class I & Class II Nav Review
- Enroute - Gross Accuracy Check
- Enroute - Approaching a Waypoint



Enroute - Passing a Waypoint  
Enroute - Class II CFP Procedures  
Enroute - Class II CFP Procedures - Circle  
Enroute - Class II CFP Procedures - Slash  
Enroute - Class II CFP Procedures - X  
Enroute - Class II - Position Plotting  
Enroute - Class II - Plotting Chart & AIREP  
Enroute - Plotting Chart and AIREP - Completion  
Enroute 10-Minute Plot

Oceanic Checklist  
Oceanic Checklist Use

## **P-RNAV Module**

Background  
The Beginning  
B-RNAV  
P-RNAV  
RNP-RNAV  
AC 90-96A

P-RNAV SIDs /STARs  
Naming of RNAV SIDs / STARs  
STAR Termination  
ICAO Waypoint Definition  
Fly-By & Fly-Over  
Radio Phraseology  
Additional Radio Phraseology  
SIDs / STARs Phraseology

Pre-Flight  
Pre-Flight Prep  
Approvals - FAA  
Approvals - AFM  
Database  
Preparation of ICAO Flight Plan  
NOTAMS  
Dual Systems  
RAIM  
SID Loading  
Flight Plan Check

Departure

Prior to Takeoff  
Review the Chart Notes  
Flight Director  
Line Up  
Flight Plan Monitoring

Arrival  
Star Notes  
Flight Plan Check  
Flight Plan Monitoring  
Conventional Procedures

Contingencies  
Lost Comm  
Loss of RNAV Capability  
Loss of the Primary RNAV Sensor System

Incident Reporting  
EASA Incident Reporting

## **North America**

Sources and Content of International Flight Publications  
Preparation  
International Operations Manual  
FAA Oceanic Operations  
Jeppesen Airways Manual  
Jeppesen Enroute Charts  
NBAA  
ICAO

Required Documents  
Documents for whom / what?  
Crew  
Class I Medical Certificate  
FCC Radio Operators Permit  
Passports  
Types of Passports  
Passengers  
Birth Certificates  
Does everyone need a passport?  
What is a Visa?



Outside the U.S.  
Visa Requirements  
Types of U.S. Visas  
Visa Waiver Program  
VIDEO: Visa Waiver Program  
Visa Waiver Program Approved  
Visa Paperwork  
Status of Minors  
Aircraft  
Pets

General  
Cabotage  
ICAO Flight Plan  
State.gov  
CDC

US Customs  
Private or Commercial  
Outbound Clearance  
APIS & eAPIS  
Commercial APIS Filing  
Private eAPIS Filing  
eAPIS & CBP Destination Notification  
Southern Returns to the USA  
Border Overflight Exemption  
Border Overflight Exemption Process  
Information for Private Flyers  
Each office is different  
Passenger Declaration  
General Declaration  
I-92  
Customs Decal  
Regulated Garbage

Canada  
Customs Notification  
Canadian Customs  
CANPASS  
Entry Letter  
Firearms  
Curfew  
Weather

Runway Friction  
CRFI Application  
Flight Plan  
SID/STAR  
Communications  
Uncontrolled Airport Communications  
Enroute Communications  
Shuttle Procedure

Mexico and Caribbean  
Handler  
Weather  
Prist  
Insurance  
USVI

Gulf of Mexico and Cuba  
Introduction  
Authorizations  
International Operations Manual  
Airspace  
International?  
Air Traffic Control  
Warning Areas  
Alert Areas  
Controlled Firing Areas  
Restricted Areas  
Navigation Requirements  
Long Range Navigation  
RNP-10 or 4  
RNP-10 or RNP-4 Operations  
NDB Navigation  
WGS-84  
HF and VHF Communications  
VHF Lo Gap  
Position Reports  
Military Operations  
Helicopter Operations  
Operations to Mexico  
Operations to Cuba  
Cuba Overflight Permit  
Jeppesen LA 7 & 8 Chart  
FIR Hand-Off



Ball Notes  
10 Minute  
FIR Contact Example

Extended Overwater  
Definitions  
Required Emergency Equipment  
ICAO Flight Plan  
Communication and Navigation  
Exception to the Rule  
Flight Planning and Dispatch  
Equal Time Point Calculations  
Wet Footprint  
Search and Rescue Techniques  
ADIZ  
Intercept Procedures

WATRS Plus Airspace  
Introduction  
Lateral Separation  
Vertical Separation  
Waypoint Types  
ICAO Flight Plan  
ICAO Flight Plan: Negative RNP  
RNP-10 Authorization  
RNP-10 LRNS  
No RNP-10  
Y-Routes Introduction  
Y-Routes Authorization  
Y-Routes Procedures  
HF Communications  
Communications Concepts  
HF Frequencies  
Monitor Frequencies  
Comm Failure  
VHF / Radar Coverage Routes  
Transponder Operation  
Bermuda  
Bermuda Airport  
Important Concepts  
SLOP  
LRNS Failure  
Inflight Contingency Procedure

Basic Contingency Actions  
Weather Deviation Procedures  
ICAO Doc. 4444 - Introduction  
ICAO Doc 4444 - General Procedures  
ICAO Doc 4444 - Initial Actions  
ICAO Doc 4444 - Subsequent Actions  
ETOPS  
Distress or Urgent Communications

## **RVSM**

Authorizations  
RVSM Authorization  
US Letter of Authorization  
US Change of Address - LOA  
US FAA Ops Spec B046 - Part 135  
US FAA Ops Spec D092 - Part 135  
US FAA LOA for Non-Part 135 Aircraft  
US FAA LOA Validity  
EASA Authorization

RVSM  
FAA and EuroControl Guidance  
Height Monitoring  
Height Monitoring-USA  
Height Monitoring-Europe  
RVSM Worldwide  
RVSM Locations  
Russia RVSM  
Mongolia RVSM  
RVSM Altitudes  
China FLAS  
FLAS Example  
Transition Areas  
Flight Planning  
Flight Plan - FAA Non PBN  
Flight Plan - ICAO  
Flight Plan - Equipment Error  
Equipment Requirements  
Autopilot  
Aircraft Specific Procedures  
Verify Altimeters  
Altimeters



- Overshoot
- Standby Altimeter
- Mx Items
- TCAS TA/RA Mode
- TCAS Caution
- Visual Perception
- Wake Turbulence
- Wake Turbulence Report Numbers
- RVSM Checklist
- For Additional Information

#### Contingency

- Contingency Plans
- RVSM Equipment Problems
- Basic Contingency Procedure
- RVSM Contingency

### **ICAO Procedures Module**

#### Background

- Overview
- Introduction
- ICAO Annexes
- Other ICAO Documents
- FAR 91.703
- Information Sources
- State Rules
- PANS-OPS

#### General

- ICAO Airport Codes
- Jepp Terminal Briefing
- Engine Start
- Conditional Phrases in Clearances
- Speed Limits
- Approach Clearances
- Approach Ban
- Emergency and Interception

#### PANS-OPS

- What is PANS-OPS?
- TERPS or PANS-OPS

- RWY Distance
- Approach Category
- Track
- Departure Climb Gradient
- SIDs
- SID Categories

#### PANS-OPS Approaches

- TERPS vs. PANS-OPS - Procedures
- Holding
- Holding Limitations
- Approach Segments
- PANS-OPS Approach Segments
- Initial Approach Chart
- Final Approach Chart
- Initial Approach Speed
- Procedural Tracks
- TERPS Approach Procedures
- ICAO Reversal Procedures
- 45 - 180 PT
- 80 - 260 PT
- Base Turn PT
- Course Reversal Entry
- The 30° Entry Sector
- Base Turn - 30° Entry Sector
- Outside the Entry Sector?
- Racetrack Procedures
- Circling Procedures

#### ICAO Altimetry

- QNH, QNE, and QFE
- Transition Layer
- Units of Measure
- Which Unit?
- mm
- Settings - Rule of Thumb
- Metric System
- MPS
- QFE Procedures
- QFE Introduction
- QNH and QFE Values
- Correction Factor
- QFE Procedures



Emphasis  
High Elevation Airports  
EGPWS and Pressurization  
Summary

General Considerations  
Typhoons  
Ring of Fire  
Volcanoes  
Tsunamis

## **Pacific Ocean Region Module**

General Information  
Pacific Introduction  
Pacific FIRs  
Pacific Traffic  
Authorizations  
Pacific Information  
Pacific Resource Guide  
Important Concepts

Operations  
RVSM & RNP-10  
RNP-10 Route Structure  
RNP-10 Equipment  
RNP-10 Limits  
RNP-10 GPS  
MACH Number Technique  
Communications HF  
Communications SATCOM  
NOPAC VHF  
Guarding Frequencies  
Position Reports  
CPDLC  
Transponder

Central East Pacific (CEP) System  
PACOTS - Pacific Organized Track System  
NOPAC Route System  
NOPAC Route Check Procedures  
Airports  
Pacific Oceanic Airspace Entry Checklist  
SLOP  
Australia TSP

Contingency Actions  
Contingency Introduction  
Special Note - NOPAC  
Comm Failure  
NAV Failure

China RVSM  
Intro  
FLAS Table  
FLAS Table Example  
Transition Areas  
Chinese English

## **Assessment**

Demonstrate knowledge by successful test completion with a minimum score of 80% corrected to 100%.