Aviation Training Organisation

Training Program

"Safety requires knowledge"

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Aviation Training Organisation - Description

Gruber Aviation is an Austrian CAA-approved Aviation Training Organisation.

It is based in Fischamend, near Vienna International Airport and is authorized for theoretical training for aviation personnel.

The training locations are selected by the customer and may be done at the homebase of the operator.

Trainings are supported by multimedia equipment of latest technology to ensure efficient training.

Other fields of activities of Gruber Aviation are:

- Pilot recruiting
- Air carrier consulting
- Accident investigation
- Aviation expertises, etc.

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Head of Aviation Training Organisation

Capt. Ing. Gerhard GRUBER
Managing Director and Head of Training

Capt. Ing. Gerhard GRUBER is a graduate of the technical high-school for precision mechanic in Mödling 1973.

His careers run parallel on the ground at Vienna International Airport and in the air resulting in outstanding aviation knowledge.

He joined Vienna International Airport in 1974, from 1989 to 2016 he was the Manager Airport Operations and Rescue Operations and Head of EASA Safety- and Compliance Management until 2019.

Gerhard Gruber is well trained (by IATA) and experienced in crisis management and dealing with media in crisis situations (trained by national TV-company ORF).

He was a member of the ACI WORLD Operational Safety Subcommittee and former chairman of the ACI EUROPE Technical and Operational Safety Committee.

Capt. Gruber is an aviator extraordinaire with 50 years of experience in aviation and around 10.000 flying hours acquired mainly in business jets on worldwide operation.

Mr. Gruber started his flying career in 1970 and is an active EASA and FAA airline transport pilot, licensed flight dispatcher, FCL-TRI/TRE/FIE and Senior Examiner. He is also acting as aircraft accident investigator for the Austrian Ministry of Transport and as certified court surveyor.

He is flight instructor since 1976 and joined commercial aviation in 1984, holding various positions as Chief Pilot, Manager Flight Operations and Flight Safety Manager.

Mr. Gruber is flying for several aircraft operators and was also a pilot for Lauda-Air Executive, which was the contractor for the Austrian government.

He is well known speaker on international aviation seminars organized by ACI and Flight Safety Foundation.

Course Overview - Pricelist

Code	Courses (for details see next pages)		Duration	Rmks
ACAS	Airborne Collision Avoidance System		4 hrs	1)
COLD	Aircraft De-/Anti-Icing, Generic		2 hrs	1)
ALAR	Approach- & Landing Accident Reduction		1 hr	
BIRD	Birdstrike Hazard		1 hr	
CFIT	Controlled Flight into Terrain Avoidance		1 hr	
CRWY	Contaminated Runway / Winter Ops		2 hrs	1)
CONT	Contingency Procedures		2 hrs	1)
CRMI	Crew Resource Management - 2-days (e.g.: Initial)		2 days	
CRMR	Crew Resource Management – 1-day (e.g.: Recurrent)		1 day	
CRMH	Crew Resource Management – 1/2-day (max. 4 hrs)		1/2 day	
CRISIS	Crisis Management / Media Training		8 hrs	
DGGI/R	Operator's and ground handling agent's staff involved in the handling, storage and loading of cargo, mail or stores and baggage (PK 8),	Initial	16 hrs	1)
		Refresher	8 hrs	1) ,2)
DGPI/R	Passenger handling staff (PK 9)	Initial	8 hrs	1)
		Refresher	4 hrs	1) ,2)
DGCCI/R	Flight crew members and load planners, (PK 10) or Crew members (other than flight crew members) (Personnel category PK 11), for operators **carrying** DG	Initial	16 hrs	1)
		Refresher	8 hrs	1) ,2)
DGCNI/R	Flight crew members and load planners, (PK 10) or Crew members (other than flight crew members) (PK 11), for operators **not carrying** DG	Initial	8 hrs	1)
		Refresher	4 hrs	1) ,2)
ERP	Emergency Response Plan		3 hrs	
LVIS	Low-Visibility Operation		4 hrs	1)
MEL	Minimum Equipment List, Generic Introduction		1 hr	
MNPS	MNPS- / NAT-HLA - Operation		5 hrs	1)
NETO	Non-ETOPS, Extended-range Twin-engine Op.		3 hrs	1)
PBN	Performance Based Navigation, RNAV		5 hrs	1)
RAAS	Runway Awareness and Advisory System		2 hrs	1)
ROUTE	Route and Aerodrome Qualification (Generic)		2 hrs	1)
INCAP	Pilot Incapacitation		1 hr	1)
RVSM	Reduced Vertical Separation Minima, Int. Operation		2 hrs	1)
SARA	Search & Rescue at Airports		3 hrs	
SMOKE	Smoke, Fire and Fume, Generic		2 hrs	1)
TAWS	Terrain Awareness Warning System (EGPWS)		3 hrs	1)
UPRT	Upset Prevention Recovery Training		5 hrs	1)
VOLC	Volcanic Ash Cloud Hazard		2 hrs	

Remarks:
1) Lesson is followed by a questionnaire (min. 80% required)
2) Completed initial training and valid DG-certificate required

The tutorial portion of the course provides all the advantages of multimedia technology, tailored to provide a high level of training efficiency.
Our seminars have a modular structure that can be shaped to fit the particular needs.
Group discounts available.

Terms of Condition

Number of attendees:

Minimum 3 persons.

Limitations for Dangerous Goods Training:

Maximum 25 persons.
1 training unit (block duration) means 45 minutes.
Maximum 8 training units per day.
Timeframe from 08:00 to 22:00 local time.

Training Location:

All training courses are available at locations selected by the customer.

Payment:

All fees have to be paid before training/travel.

Fees are including handouts and administration
(e.g. CAA-coordination, course certificate)
excluding
- VAT,
- costs for travelling (overnight, parking) and
- meeting room.

Cancellation fees:

Cancellation fees are equivalent to 3 attendees as follows:

0 %, if storno is at least 1 month prior training
20 %, if storno is at least 2 weeks prior training
50 %, if storno is at least 1 week prior training
80 %. if storno is within 1 week prior training
100 %, for all non refundable expenses (e.g.:travel fees)
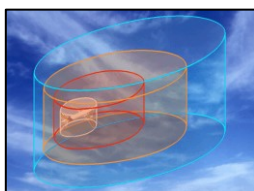
ACAS – Airborne Collision Avoidance System

Description: The course is to train pilots in the functions and operation of the advanced alert collision and avoidance system ACAS II / TCAS II.
The training focuses on the theory of operation, pre-flight operations, general in-flight operations, response to TAs and response to resolution advisories (RAs).

Audience: Flight Crews

Duration: 4 hours

Contents:

General:

- ACAS Principles and function
- TCAS I, II, III, IV
- Legal regulation to install, operate and train ACAS (ICAO, EU)
- Software versions

Description:

- ACAS Components
- Software versions
- Display, Symbology
- ACAS Controls and Operations
- ACAS test
- Aural Alerts
- Traffic Advisories (TA) Resolution Advisories (RA)
- New RA
- Change RA
- Range setting (horizontal/vertical)
- ACAS Predictions
- Pilot Actions, reaction time
- Maintain attitude
- Nose up, Nose down
- Transponder requirement
- ACAS Limitations
- ACAS inhibits
- Advisory thresholds

ACAS Situations:

- Climb RA in the landing configuration
- RA in a turn
- Off scale traffic
- No altitude data tag
- No bearing traffic
- ACAS fail message
- Use of TA only mode
- Phraseology rules

Normal RAs:

- Resolution Advisory (RA) Commands
- Climb, Descend, Crossing climb, Crossing descent, Level off, Increase climb, Increase descent, Climb now, Descend now,

Complex RAs:

- TAs without RAs
- "Clear of conflict" situations
- Change RAs

Case Studies:

- - USA
- - Überlingen

Aircraft De-/Anti-Icing, Generic

Description: During this course you will learn about the effects of contamination on airfoil, definitions, fluids used, de-ice- / anti-ice procedures, regulations and related accidents.

Audience: Flight Crews, Dispatcher and Maintenance Personnel

Duration: 2 hours

Contents:

- Legal requirements
- De-icing related accidents
- Case studies and lessons to be learned
- Effect of contamination on airfoil
- Definitions
- Clean aircraft concept
- Fluids used
- Health and safety datas for fluids
- De-ice- / anti-ice-procedures
- One-step and two-step procedure
- Generic model on how to de-ice/anti-ice an aircraft
- Documentation of de-icing-process
- Hold over time (HOT) / Definition
- Use of hold over time tables
- Variables that can influence HOT
- Residues of high viscous fluids
- Contracted activities
- Compliance monitoring
- Different de-icing technologies
- Examples of local procedures

Approach & Landing Accident Reduction (ALAR)

Description: The course is to raise awareness about the critical flight phases approach and landing. It emphasises the need of stabilized approaches and the procedures therefore. The lesson covers situations in good and low visibility.

The lesson includes case studies to comply with the CRM-requirements according AMC1 ORO.FC.115(f) / 215(f), Table 1.

Audience: Flight Crews

Duration: 1 hour

Contents:

Lesson Principle

- Non-blaming policy

Case studies

- C340 – Vienna
- YAK-40 – Vienna
- C550 – Vienna
- LR35 – Tulln
- MD-82 – Little Rock

Human factors

- Elements of Communication
- Need for feed back
- Decision making.
- Error chain
- Workload management

Accident-investigation

- Investigation results.
- Cockpit voice recorder
- Flight data recording readout

Low visibility approach

- Optical illusion
- Benefit of Monitored approach
- Procedures for Monitored Approach

Accident Statistic

- Short landing accident explanation (ICAO)

Stabilized approach concept

- What happens if not stabilized during approach and landing?

Elements of stabilized approach
- Correct flight path;
- Small changes in heading/pitch
- Speed within limits;
- Correct landing configuration;
- Sink rate
- Power setting
- Briefings and checklists conducted;
- Criteria's for different approaches

Birdstrike Hazard

Description: During this course you will learn how to deal with birds in aviation, the risks involved and the fatal results of bird strikes. The course includes also a condensed overview about the aircraft certification standards and which measurements can be done to reduce the risk of hitting a bird.

Audience: Flight Crews, Dispatcher and Maintenance personnel.

Duration: 1 hour

Contents:

Accident Statistics:
- Recent accidents caused by bird strikes
- Details about aircraft type involved
- Fatalities and description.

Case Studies:
- You will learn which effect a bird strike can have in general.

Design Standards Airplane and Turbine Engines:
- You will learn the design standards for Air Transport Aircraft and the limits regarding impact (weight and number of bird)

Studies:
- You will learn from recent events, what happens if a bird exceeds design standards (airframe, entire aircraft, windshield and empennage).

Investigation:
- You will learn how investigation is performed and collecting data for further prevention of bird strikes.

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Bird Characteristic:
- You will learn which species are above design standards and where they are living and how they behave.

Statistic (World and Vienna):
- You will learn about the seasonal and flocking behaviour, bird strikes distribution for the day/month and species.

Counter Actions:
- You will learn how to reduce the risk and results of bird strikes for regulators, airport operators, aircraft operators and flight crews with special emphasis on the importance of kinetic energy as a result of airspeed.

Documentation:
- You will learn which form to be used for reporting a bird strike.
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CFIT – Controlled Flight into Terrain Avoidance

Description: The course is to raise awareness about the critical flight phases approach and landing. It emphasises the need of stabilized approaches and the procedures therefore. The lesson covers situations in good and low visibility.

The lesson contain case studies and items dealing with the CRM-requirements according AMC1 ORO.FC.230.a.3 and AMC3 CAT.OP.MPA.115.e.5.i.J (CDFA).

Audience: Flight Crews

Duration: 1 hour

Contents:

Case studies

- DC-8 Quito
- G-2; Quito

Dark Hole Approach

- Cockpit view
- Human factors
- Descend path

Statistic

- Top 10 Accident Categories
- Consequences of Crew Errors
- Leading CFIT factors

Flight Safety Foundation Checklist

- Risk assessment
- Risk multiplier
- Risk reduction factors

Standard Operating Procedures

- Sterile cockpit
- Plan ahead
- Use of nav-aids

Crew resource management

- Cooperation between the pilots
- Cooperation with ATC

Approach Charts

- Correct interpretation of charts

EGWPS

- Function
- Modes
- Manoeuvres

CDFA Continuous Descent Final Approach

- CDFA technique
- Risk when not using CDFA technique

Contaminated Runway / Winter Ops

Description: During this course you will learn about the effects of cold weather and the hazards involved during ground operation.

The training also includes the runway status reporting procedures and typical aircraft limitations. New regulations effective from Nov 2021 included.

Audience: Flight Crews, Dispatchers and Maintenance personnel.

Duration: 2 hours

Contents:

Basics

- Definitions
- Regulations incl. new WEF Nov 2021
- Operator/Pilot responsibilities
- Operational impact
- Hydroplaning principles and effects
- Contaminant Properties
- Declared runway distances
- Winter services at airports

Cold Weather Basics

- The effects of cold air and the hazards as a consequence of cold weather
- optical illusions
- accident statistics
- temperature correction factors
- flight ops effects
- accident case studies
- effects of saturation on weather radar
- critical airport conditions
- flight ops practices
- obscured visual aids
- special NOTAMs concerning surface,
- general impact of cold weather
- arctic rescue basics
- references for legal basics

SNOWTAM and RCAM

- Legal background
- New definitions
- interpreting a SNOWTAM
- effects of contaminated surfaces on aircraft performance,
- characteristic of limited snow cleaning
- snow banks
- systematic of friction measuring
- friction measuring vehicles used
- equipment used for snow cleaning
- snow cleaning procedures
- treatment of ice on movement areas
- de-icing liquids used
- runway sensors
- hazard and prevention of ice patches

Aircraft Operation and Limitations

- Definitions of contamination
- Sources of informations,
- manuals involved,
- cold weather effects on aircraft systems,
- commanders responsibilities,
- generic AFM-limitations,
- ground procedures to cope with cold weather.

Contingency Procedures

Description: The course is to train pilots and dispatchers in applying contingency procedures. The training focuses on the operational possibilities to tap the full potential to perform flight in critical areas within the legal framework (CAT.POL.A.210.c Take-off obstacle clearance).

Audience: Flight Crews and Dispatchers.

Duration: 2 hours

Contents:

Definitions

- Contingency Procedures
- EU and PANS-OPS Abbreviations
- Class A Aircraft

Basics

- Legal Background
- Liability of Route-Chart Providers

Regulations

- ICAO Doc 8168 Pans-Ops
- ICAO Annex 4
- ICAO Annex 6
- EU-Regulations

Responsibility of the Operator

- Regulations for Obstacle Clearance
- Regulations according PANS-OPS
- Regulations according EU-Regulat.

Interpretation of Route-Manual

- Required Climb Gradient
- Chart Symbols and Remarks

Aircraft Performance

- Certification Requirements
- Required Gradients
- Climb Segments
- Variable Factors (temp, bleeds etc.)
- Methods to increase Climb Perf.
- Individual Runway Tables (IRTs)

Design Criteria for Contingency Proc.

- Obstacle Clearance Requirements
- Aircraft Performance
- Aerodrome Obstacle Charts
- Calculation of Gradients

Flight Procedures

- Use of Aircraft Performance Manual
- Application of Contingency Procedures
- Weather Requirements
- Use of Onboard Equipment

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Crew Resource Management

Description: The CRM-course is to train pilots in the effective utilisation of all available resources (e.g. crew members, aeroplane systems, supporting facilities and persons) to achieve safe and efficient operation.

The objective of CRM is to enhance the communication and management skills of the flight crew member concerned. The emphasis is placed on the non-technical aspects of flight crew performance.

Audience: Flight Crews and Cabin Crews

Duration: See table "References to Regulations"

The training will be tailored depending on the needs of the operator to cover the topics as indicated below. See also table "Crew Resource Management Trainings" below.

A 3 years recurrent programme can be offered covering all topics.

Contents: The detailed training elements for flight / cabin crews can be seen in the tables below.

Crew Resource Management Training (FC)

CRM Training Elements according AMC1 ORO.FC.115.g, Table 1.	Initial operator's CRM Training	Operator's conversion course when changing aircraft type	Operator's conversion course when changing operator	Annual recurrent training	Command course
General principles:					
Human factors in aviation; General instructions on CRM principles and objectives; Human performance and limitations; Threat and error management.	In-depth	Required	Required	Required	Required
Relevant to the individual flight crew member:					
Personality awareness, human error and reliability, attitudes and behaviours, self-assessment and selfcritique; Stress and stress management; Fatigue and vigilance; Assertiveness, situation awareness, information acquisition and processing.	In-depth	Not required	Not required	Required	In-depth
Relevant to the flight crew					
Automation and philosophy on the use of automation	Required	In-depth	In-depth	In-depth	In-depth
Specific type-related differences	Required	In-depth	Not required	Required	Required
Monitoring and intervention	Required	In-depth	In-depth	Required	Required
Relevant to the entire aircraft crew					
Shared situation awareness, shared information acquisition and processing; Workload management; Effective communication and coordination inside and outside the flight crew compartment; Leadership, cooperation, synergy, delegation, decision-making, actions; Resilience development; Surprise and startle effect; Cultural differences.	In-depth	Required	Required	Required	In-depth
Relevant to the operator and the organisation					
Operator's safety culture and company culture, standard operating procedures (SOPs), organisational factors, factors linked to the type of operations; Effective communication and coordination with other operational personnel and ground services.	In-depth	Required	In-depth	Required	In-depth
Case studies	In depth	In depth	In depth	In depth	In depth

Crew Resource Management Training (CC)

CRM training elements According AMC1 ORO.CC.115(e).g, Table 1	Operator's CRM training	Operator aircraft type conversion training	Annual recurrent training	Senior cabin crew member (SCC) course
General principles				
Human factors in aviation; General instructions on CRM principles and objectives; Human performance and limitations; Threat and error management.	Not required (covered under initial training required by Part-CC)	Required	Required	Required
Relevant to the individual cabin crew member				
Personality awareness, human error and reliability, attitudes and behaviours, self-assessment and self-critique; Stress and stress management; Fatigue and vigilance; Assertiveness, situation awareness, information acquisition and processing.	Not required (covered under initial training required by Part-CC)	Required	Required (3-year cycle)	Required
Relevant to the entire aircraft crew				
Shared situation awareness, shared information acquisition and processing; Workload management; Effective communication and coordination between all crew members including the flight crew as well as inexperienced cabin crew members; Leadership, cooperation, synergy, delegation, decision-making, actions; Resilience development; Surprise and startle effect; Cultural differences; Identification and management of the passenger human factors: crowd control, passenger stress, conflict management, medical factors.	In-depth	Required when relevant to the type(s)	Required (3-year cycle)	In-depth
Specifics related to aircraft types (narrow-/wide-bodied, single-/multi-deck), flight crew and cabin crew composition and number of passengers	Required	In-depth	Required (3-year cycle)	In-depth
Relevant to the operator and the organisation				
Operator's safety culture and company culture, standard operating procedures (SOPs), organisational factors, factors linked to the type of operations; Effective communication and coordination with other operational personnel and ground services; Participation in cabin safety incident and accident reporting.	In-depth	Required when relevant to the type(s)	Required (3-year cycle)	In-depth
Case- studies	In-depth	Required when relevant to the type(s)	In-depth	In-depth

Kommunikations- und Medientraining (Deutsch)

Beschreibung: Das Tagesseminar vermittelt die Kenntnisse effektiver Kommunikation mit Fokus auf Krisensituationen.
Es umfasst sowohl einen theoretischen Teil als auch eine praktischen Teil und Analysen vergangener Krisen.

Zuhörer: Personen mit der Notwendigkeit zur Kommunikation mit Medien.

Dauer: 8 Stunden

Contents:

1. Rhetorik

Redearten, Reden vor Publikum, Sprechtechnik, Atemtechnik, Klangfärbung (Stimmlage, Tonfall), Sprechtempo, Pausen, Rhetorikprobleme, Do's and don'ts der Rhetorik.

2. Körpersprache

Einsatz und Beurteilung der Körpersprache, kurz-/langfristige Körpersprachen, Mimik, Gestik, Körperdistanzzonen, Augenkontakt, Blickrichtungen, positive / negative Körperhaltungen.

3. Kommunikation

Ausgangssituation, Gesprächstechnik / Gesprächstypen, Kommunikationsebenen, Wege zu Merksätzen und schlagkräftigen Aussagen, die 4 Kommunikationsaspekte, kongruente und nichtkongruente Nachrichten, non-verbale Kommunikation, Fragetechnik des Interviewers, Fragetypen (offen/geschlossen), Antworttechniken des Interviewten.

4. TV-Interview

a) Arten: Panel-Diskussion/runder Tisch, On the fly, 2-Personen (aktueller Dienst, Studio, Remote).
b) Vorbereitung: Checkliste, Kleiderauswahl, Abstimmung mit Interviewer, Techniken zum Stressabbau, Örtlichkeit.
c) Das Interview: Das Interesse des Journalisten, Kameraeinstellung, Checkliste der Hauptfehler, Verhalten vor Kamera, Berücksichtigung d. Cutters.

5. Workshop - Interview-Training

Videoaufnahmen von Interviews mit unterschiedlichen Situationen. Analyse der eigenen Videoaufnahmen.

6. Krisenkommunikation

Auslöser / Ursachen: (Aircraft accidents/incidents, Sabotage, Hijacking, Injury/illness to passengers, Technical problems, Financial issues, Strikes/Service disruption, Significant damage to company property, Natural disaster, Civil unrest, Accident involving alliance/franchise Partner),
Ergebnisse schlechter Krisenkommunikation.
Wer stellt sich der Öffentlichkeit?
die erste Stunde, das Pressestatement, Kontrolle der Medien, Kommunikation der Prioritäten, die Dark Side, Pressekonferenzen, Abstimmung mit den Beteiligten (Flusi, Airport, Polizei, Feuerwehr, FUS, etc), Interessensgruppen, Datenquelle zentralisieren, die richtigen Antworten auf kritische Fragen / Angriffe,
Do's and don'ts in der Krisenkommunikation, Aufrechterhaltung der Reputation und Glaubwürdigkeit, Abschirmung der Crew / Mitarbeiter / Angehörige,
die „Off-the-Record"-Falle,
Typischer Tag 1 / 2 / 3 Ablauf,
Wann endet die Krisenkommunikation?

7. Analyse aktueller Krisenkommunikationen
(Zeitungen / TV-Auftritte)

Beispiele (Happag Lloyd, Lauda, Germanwings, usw) Zeitliche Abfolge, was wurde wie kommuniziert? Wie beeinflussten neue Erkenntnisse die Kommunikation? Wie waren die Abläufe beim B767 Unfall der Lauda Air? Warum hat Niki Lauda die Krise so gut gemeistert? Erkenntnisse.

8. Social Media und Internet

Die Flexibilität und Kraft, Datenverbreitung, Flugspuren, Reaktionszwang, Wissensvorsprung der Medien, Praxisbeispiele aus der Wirtschaft und Luftfahrt.

Dangerous Goods

Description: During this course you will learn about the handling of dangerous goods, hazards of dangerous goods and the regulations involved.

The training is a mandatory requirement for all flight and cabin crews and staff associated with passenger and cargo handling (even for operators without authorization for DGs).

The course is fulfilling the requirement for initial and recurrent training in accordance with the ORO.GEN.110.j, GGBV, ICAO and IATA Dangerous Goods Regulations (DGR).

This training does **not** meet the requirements specified for operators and ground handling agent's staff **accepting** dangerous goods.

Audience: Aviation personnel (see course overview on page 5).

Duration: See course overview on page 5

Contents:

Introduction
- General philosophy
- History
- Validity of training
- Definitions
- Approval for the operator (AOC)

Dangerous Goods Regulations (DGR)
- ICAO
- IATA
- EU-Regulations
- GGBG, GGBV

Case Studies
- Fatal accidents
- Occurrences with passengers

Responsibilities
- Shipper's
- Operator's
- Acceptance checklist

Informations
- to the commander (NOTOC)
- to personnel
- to passengers
- to accident agencies / ATC

List and Classification of DGs
- Classes and divisions
- IMP Code and UN-Numbers
- Compatibility

Marking, Labelling and Packing
- Labelling system
- Handling labels
- Subsidiary risk labels
- Packing groups
- Packing instructions

Categories of Dangerous Goods
- DGs forbidden in all aircraft
- DGs permitted on cargo aircraft only
- DGs permitted as cargo on pax aircraft
- DGs in operator's property
- DGs in passenger and crew baggage
- Hidden dangerous goods
- Dangerous goods in air mail

DGs not prohibited for Pax and Crews

Loading of Wheelchairs

State and Operator Variations

Storage, Loading & Segregation of DGs
- Transport Index / Table
- Calculation of minimum distances

Guidelines in Case of Damage to DGs

Aircraft Emergencies and Reporting
- Emergency response guide
- Drill code
- Reporting form
-

ERP – Emergency Response Plan

Description: During this course you will learn about the actions to be taken in an emergency.

It deals with the procedures to ensure an orderly and safe transition from normal to emergency operations and return to normal operations

Special focus is given to the reduction of the impact for the company and handling of media.

Audience: This course is intended for Flight Crews, Dispatcher and Post Holders..

Duration: 3 hours

Contents:

- The "Environment"
- SAR-Organization, ELT-System
- Purpose of an Emergency Response Plan
- Emergency Response
- Response Activities – Office and On-Site
- Public Relation
- Basic Employee Rules
- Functions and Responsibilities
- Reporting
- Preserve of Evidence, Investigation
- Contingency Planning
- Business Continuation Plan

Low Visibility Operation

Description: The course gives academic training in accordance to SPA.LVO.120.a.1 to pilots for operation during low visibility (take-offs and CAT-I). The training focuses on the restricted ability to assess the position and which aids are available to keep safety at the desired level.

The lesson does not include CAT-II/III issues or use of EVS.

Audience: Flight Crews

Duration: 4 hours

Contents:

Basics

- Definitions and Regulations
- Training and Qualification
- Visibility requirements for CAT-I operators
- TO-RVR Exception

Case studies

- Milano (SAS-MD80)
- Singapore (DC-8)
- Taipeh (SQ-B747).
- Paris
- Vienna

Ground- and Airborne Facilities

- Ground Installations
- SMR
- Lightings (CLL, stop bars)
- RVR assessment systems
- Markings and Signs
- Complex taxiway systems
- Publication / NOTAMS
- Risks of runway incursion
- Hot spots
- Non Visual Aids (ILS, MLS, Marker)
- Correct seat and eye position
-

The Human Factor

- Individual Behaviour
- James Reason Risk Model
- Human error, error chain
- Error detection and prevention
- Layers of defence
- Human RVR Observer
- Accident prone intersection take-offs.

Environment

- Use of navigation equipment
- Use of heading indicator
- Windshield view
- Characteristic of Fog
- ATC Procedures (Spacing, Equipment Failure)

Crew Coordination

- Operating Procedures, Minima, SOPs, CRM
- Best practice tips for pilots during low-visibility conditions.
- Interaction between cockpit procedures and Visual Aids

Search and Rescue
- Restriction because of low-visibility condition

MEL – Minimum Equipment List – Generic

Description: During this course you will learn about the handling of the Minimum Equipment List including the scope, extent and use of the MEL, placarding of inoperative equipment; deferral procedures and dispatching.

Audience: Flight Crews, Dispatcher and Maintenance Staff.

Duration: 1 hour

Contents:

- Definitions
- Operator/Pilot Responsibilities
- Scope, extent and use of the MEL
- Deferral procedures
- Placarding of inoperative equipment
- Dispatching of Aircraft with MEL-item
- Documentation
- Case Studies
- Regulations
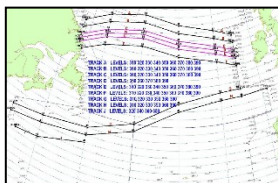
MNPS / NAT-HLA Operation

Description: During this course you will learn how to prepare and operate in areas where minimum navigation performance specifications are valid. All regulations to comply with within such areas are part of the course.

Audience: Flight Crews and Dispatchers.

Duration: 5 hours

Contents:

Operat. Approval & Aircraft System Requ.

History, dimension and CTAs, operat. approval and aircraft syst. Requirements, monitoring program, state approval, requirements for unrestricted operation, Long./lateral navigation, separation of aircraft, mach number, Routes for short-range equipment only, crossing by non-MNPS approved aircraft, equipment for RVSM-operation, rules for non-RVSM aircraft.

The Organised Track System (OTS)

Construction of the OTS, NAT-track message, Other Routes within or adjacent to NAT MNPSA.

Flight Planning

Preferred Route Messages (PRMs), Flight Plan Requirements. ATC Flight Plans, ETOPS vs OTS, planning for flights w/o HF-Com, VHF-coverage.

Oceanic ATC Clearances

Elements and examples, abbreviated clr., clearances for random routings, errors associated.

Communication and Position Reporting

HF and VHF Comm., standard message types, WAH-reports, met-reports, SELCAL, GP VHF, Comm-Failure, ops of transponders, ACAS.

Flight Operation & Nav. Procedures

Mach-/Nav-Procedures Introduction, accurate time, master document, ocean waypoints (ARINC 424), plotting, step-climbs, pre-flight procedures, initial insertion of coordinates (IRS), source of datas, GPS procedures, use of Satellites. Loading waypoints, in-flight procedures, monitoring, confusion btw mag. and true track, areas of compass unreliability, deliberate deviation from track, post-flight procedures, RVSM-Procedures, CPDLC, PBCS and Checklist for pilots not familiar.

Navigation System Degradation or Failure

Detection of failures, action if faulty system cannot be identified, guidance on what constitutes a failed system, inertial system failures, GPS failures, GPS fault detection, loss of navigation / FMS-capability.

In-Flight Contingencies

Subsequent actions (aircraft able/unable to maintain flight level), case study, diversion across the flow, wake turbulence, TCAS alerts, altitude deviation report form.

Irregularities

Guarding against Complacency (causes of errors, operational height errors), prevention of Track Deviations (Waypoint insertion errors, prevention of waypoint insertion errors)

Emergency Equipment

What equipment to carry for remote operation in NAT-HLA

Non-ETOPS / EROPS

Description: During this course you will learn about the operation of twin engine aircraft on extended long range flights.

The lesson is for operation in accordance with CAT.OP.MPA.140.a.2 (performance class A aeroplanes below 100.000 lbs / 45.360 kg MTOM and max 19 passengers).

Audience: Flight Crews and Dispatchers.

Duration: 3 hours

Contents:

Historic review

- Development of twin engine operation.

Regulations, definitions and procedures for
- Threshold time,
- Maximum diversion time,
- Area of operation,
- Adequate aerodrome,
- Suitable aerodrome,
- APU,
- Extended range entry point, extended exit point,
- ETOPS-segment,
- Equal time points,
- Inflight shutdown,
- ETOPS significant system,
- One engine inoperative cruising speed,
- Separate runways etc.

Requirements for system capability
- Electrical power, hydraulic power, pneumatic, APU, fuel system,
-

Maintenance requirements
- Monitoring and reporting,
- Release to service,
- EROPS checklist,
- MEL

- Flight planning
- Communication and navigation
- Fuel and oil supply,
- Alternate aerodromes,
- Aeroplane performance,
- Selection of routing,
- Weather requirements,
- Critical fuel scenario,
- Oxygen procedure,
- EROPS checklist

Flight procedures
- Preflight check,
- Progress monitoring,
- Equal time points,
- Fuel cross checks,
- Critical fuel check,
- Weather,
- Procedures for single and multiple failures,
- Diversion procedures, closest suitable alternate aerodrome,
- Drift down,
- Incapacitation of flight crew members
-

PBN – Performance Based Navigation / RNAV

Description: The course provides training to pilots in the functions and operation of the Area Navigation. The training according SPA.PBN.105.b provides training on the advantages and procedures for PBN, RNP, LNAV, LNAV/VNAV, LPV operation.

Audience: Flight Crews and Dispatchers.

Duration: 5 hours

Contents:

Regulations

- ICAO Doc 9613
- ICAO Doc 8168
- EASA AMCs
- Eurocontrol

GNSS Systems

- ABAS / SBAS / GBAS
- Augmentation Systems

Basics, Definitions and Benefits

- Theory and Goal of RNAV
- RNAV Phase-In Roadmap
- PBN, RNP
- LNAV, LNAV/VNAV, LPV
- Advantages
- Limitations of RNAV

Charting

- RNAV note on Instrument charts
- Altitude constrains on IFR Charts
- RNAV SIDs/STARs
- Closed STARs, Open STAR
- Path terminator concepts
- ARINC 424 Database Specification
- CF – Course to a Fix
- TF – Track to a Fix
- Fly-by and fly-over waypoints.
- RNAV Chart symbols

Procedure Characteristics

- Settings
- Deviations

ATC-Procedures

- ATC-clearances
- Phraseology
-
-

Flight and Contingency Procedures

- Before Start
- Take off
- Departure
- Track keeping monitoring
- Descent & arrival
- System accuracy check
- Route modification

Use of the RNAV equipment

- Functions
- Display elements
- Scaling
- Responsibilities for Obstacle Clearance

Examples of RNAV approaches

- Existing Approaches

Pilot Incapacitation

Description: The training is to raise crews' awareness to the possibility of incapacitation.

It also stresses the need to apply standard operating procedures so as to show up any abnormality in a flight crew member's performance.

The course prepares crew members for the practice in a simulator.

Audience: Flight Crews and Cabin Crews.

Duration: 1 hour

Contents:

- Definitions
- Case Studies
- Different kind of Incapacitations
- Causes of Incapacitation
- Symptoms and Detection
- Coping Strategies
- Operating Procedures
- Training and Practice
- Regulations

RAAS – Rwy Awareness and Advisory System

Description: During this course you will learn about the operation of the Runway Awareness and Advisory System including SmartLanding and SmartRunway.

All Operators are required to provide suitable training to their crew for the optimum use of RAAS and its ad-on features for safe operation on or near runways.

Audience: Flight Crews

Duration: 2 hours

Contents:

General

- Equipment Versions
- EGPWS Software Enhancements
- Marketing Names
- RAAS Features
- Automation Benefits
- Definitions
- Case Studies

Functions

- RAAS functions
- Advisories / Cautions
- Aurals and Visual Messages
- GNSS Antenna Location
- Pilot's Point of View
-

Database

- Database structure

Limitations

- RAAS - Limitations

Operating Procedures

- RAAS provided annunciations
- RAAS Operational Status
- Crew Reactions to RAAS Alerts
- RAAS Irregularities
- Abnormal Operation

Route and Aerodrome Qualification (Generic)

Description: The course is a generic training to get adequate knowledge about route or area to be flown and of the aerodromes, incl. alternates, facilities and procedures to be used.

This is to ensure the crew member's ability to operate efficiently under normal conditions

Audience: Flight Crews and Dispatcher

Duration: 2 hours

Contents:

- Legal Basis
- Requirement for PIC / Commander
- Area, Route and Aerodrome Knowledge, including
  - terrain and minimum safe altitudes
  - seasonal meteorological conditions
  - meteo., com. and air traffic facilities, services and procedures
  - search and rescue procedures where available; and
  - nav. facilities associated with the area or route flown.
- Aerodrome Categorisation
- Hazards - Environmental
- Hazards - Special Procedures
- SMS, Risk Management
- Case Studies
-
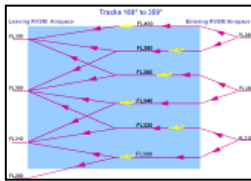
RVSM Int. Operation

Description: During the course you will learn why RVSM was introduced and what the benefits are. Included in the training are the ground- and flight procedures, minimum equipment required and the new phraseology.

Audience: Flight Crews and Dispatchers.

Duration: 2 hours

Contents:

What is RVSM?

You will learn the purpose of RVSM; how and why it originated and it is implemented.

Definitions:

You will learn to define the major RVSM terms.

Operator Specifics:

You will learn what is required in your operational LoA (Letter of Authorization) and how your LoA can be revoked if your RVSM recordkeeping and performance is not maintained to acceptable standards.

Flight Planning:

You will learn the requirements of flight planning with RVSM considerations. Special emphasis is placed on weather forecasts and circumstances that may affect flight in RVSM airspace.

Pre - Flight Procedures:

You will learn what to look for during pre-flight procedures with an emphasis on pitot-static equipment, MEL's, and other items and systems that may affect altitude-keeping ability in RVSM airspace.

Procedures Prior to RVSM Airspace Entry:

You will learn what the requirements are before entering RVSM airspace. This includes equipment, equipment malfunctions, and ATC requirements.

In - Flight Procedures:

You will learn normal as well as contingency (abnormal) procedures while operating in European and international RVSM airspace.

Post - Flight Procedures:

You will learn how to post-flight the aircraft with an emphasis on RVSM equipment and methods for disseminating malfunctions clearly and accurately to the maintenance department for rectification.

Special Emphasis Items:

You will learn about ATC procedures, turbulence, visual illusions, CRM, and other important items that require special emphasis in RVSM operations.

TCAS II, Vers. 7.1

You will learn supplemental operating procedures in RVSM airspace for TCAS II, VER. 7.1 equipped aircraft. Specifically, the differences in operating at 1,000 foot separation and the RA and TA alerts that may occur in RVSM airspace.

Search & Rescue at Airports

Description: During the course you will learn about the regulations and procedures performed at an airport before, during and after of an aircraft emergency.

Audience: Flight Crews, Dispatcher and Aviation Postholder.

Duration: 3 hours

Contents:

Legal Requirements
- ICAO
- National Regulation
- Rescue Area

Responsibilities
- Airport
- Airlines

Airport Facilities
- Fire brigade
- Rescue Coordination Center
- Crisis Center
- Passenger Meetingpoint
- Family Assist Center

Accident statistic
- Wreckage locations
- Accidents vs flight phase

Actions and Procedures
- Before an Accident
- During an Accident
- After an Accident
- Inspection during low pass
- Crisis Management
- Media Handling, Press Statements
- Cooperation with other Agencies

Low Visibility Rescue Systems (RFTS)
- Equipment
- Capability
- Procedures
- Low Visibility Procedures

Aircraft Recovery
- Recovery Equipment
- Equipment Pool
- Capability
- Responsibility

Communication
- Annex 10
- Direct Communication

Case Studies / Lessons
- Swissair DC-9
- Cessna C340
- Happag Lloyd A310
- Silent Transfer Procedure

ZMV- Zivilluftfahrt-Meldeverordnung
- Legal Requirements (Bgbl. 319/2007)
- Reporting Examples

Smoke, Fire and Fume

Description: The training gives you awareness of smoke and smell occurring during flight.

It familiarize pilots with the risk of smoke and smell in the cockpit, teach them how to deal promptly with such emergencies, how to identify the actual source of smoke and smell and how to communicate and coordinate in an actual situation.

Audience: Flight Crews and Cabin Crews.

Duration: 2 hours

Contents:

- Case Studies - Catastrophic In-flight Fires
- Definitions
- Potential Sources of Smoke and Fire
- Wire Degradation
- Actions by Crews and ATC
- Circuit Breakers
- Communication and Coordination
- Operator/Pilot Responsibilities
- Regulations

TAWS – Terrain Awareness Warning System

Description: During this course you will learn about the operation of the Terrain Awareness Warning System (also called EGPWS - Enhanced Ground Proximity Warning System) and the Runway Awareness and Advisory System.

All Operators are required to provide suitable training to their crew for the optimum use of EGPWS in avoiding CFIT and Approach and Landing Accidents.

Audience: Flight Crews

Duration: 3 hours

Contents:

General

- Historic review
- CFIT-accident statistic
- Design Philosophy
- Development of (E)GPWS,
- Altitude Awareness
- Equipment versions
- EU-Regulations
- Definitions
- Case Studies

Functions

- Surveillance and terrain avoidance
- Geometric altitude
- Terrain Look Ahead Alerting
- Wind shear detection and alerting
- Alerting Modes and Alert thresholds
- Redundancy
- Alerts (aural / visual)
- Advisory callouts
- Cockpit Contr. (MFD, PFD, WX-Rdr)
- Display Options and Colour coding
- Non-peaks display
- Pop-up function
- Terrain Clearance Floor (TCF)
- Runway Field Clearance Floor
- Aircraft Parameter
- Flap Override
- Aural message priorities
- Nuisance alerts, missed alerts

Database

- Terrain coverage
- obstacles

Limitations

- AFM-supplement
- Not for navigation
- GPS availability,
- Database coverage

Operating Procedures

- Operating controls
- Display interpretation,
- Inhibits and when they may be used
- Terrain avoidance manoeuvring
- Cautions and warnings
- Crew Responses (CAT.OP.MPA.290)
- Crew Coordination

Reporting requirements

- To ATC on RT
- Written reports (when required)

UPRT – Upset Prevention Recovery Training

Description: The objective of the UPRT is to help flight crew acquire the required competencies in order to prevent or recover from a developing or developed aeroplane upset. Prevention training prepares flight crew to avoid incidents whereas recovery training prepares flight crew to prevent an accident once an upset condition has developed. The course is also the preparation for the practical FFS training. As Gruber Aviation is not an Approved Training Organisations (ATO), this training is not in accordance with FCL.745.A.

Audience: Flight Crews

Duration: 5 hours

Contents:

A. Aerodynamics
1. General aerodynamic characteristics
2. Aeroplane certification and limitations
3. Aerodynamics (high and low altitudes)
4. Aeroplane performance (high and low altitudes)
5. Angle of attack (AOA) and stall awareness
6. Stick shaker or other stall-warning device activation (as applicable)
7. Stick pusher (as applicable)
8. Mach effects (if applicable to the aeroplane type)
9. Aeroplane stability
10. Control surface fundamentals
11. Use of trims
12. Icing and contamination effects
13. Propeller slipstream (as applicable)

B. Causes of and contributing factors to upsets
1. Environmental
2. Pilot-induced
3. Mechanical (aeroplane systems)

C. Safety review of accidents and incidents relating to aeroplane upsets
1. Safety review of accidents and incidents relating to aeroplane upsets

D. g-load awareness and management
1. Positive/negative/increasing/decreasing g-loads
2. Lateral g awareness (sideslip)
3. g-load management

E. Energy management
1. Kinetic energy vs potential energy vs chemical energy (power)

F. Flight path management
1. Relationship between pitch, power and performance
2. Performance and effects of differing power plants (if applicable)
3. Manual and automation inputs for guidance and control
4. Type-specific characteristics

5. Management of go-arounds from various stages during the approach
6. Automation management
7. Proper use of rudder

G. Recognition
1. Type-specific examples of physiological, visual and instrument clues during developing and developed upsets
2. Pitch/power/roll/yaw
3. Effective scanning (effective monitoring)
4. Type-specific stall protection systems and cues
5. Criteria for identifying stalls and upsets

H. System malfunction
(including immediate handling and subsequent operational considerations, as applicable)
1. Flight control defects
2. Engine failure (partial or full)
3. Instrument failures
4. Loss of reliable airspeed
5. Automation failures
6. Fly-by-wire protection degradations
7. Stall protection system failures including icing alerting systems

Exercises for upset recovery training

A. Recovery from developed upsets
1. Timely and appropriate intervention • •
2. Recovery from stall events, in the following configurations;
   — take-off configuration,
   — clean configuration low altitude,
   — clean configuration near maximum operating altitude, and
   — landing configuration during the approach phase.
3. Recovery from nose high at various bank angles
4. Recovery from nose low at various bank angles
5. Consolidated summary of aeroplane recovery techniques

Volcanic Ash Cloud Hazard

Description: During this course you will learn about the hazard of volcanic ash clouds for aviation, how to detect the penetration and counter measures by pilots.

Audience: Flight Crews, Dispatcher and Maintenance Personnel.

Duration: 2 hour

Contents:

Recent Accident

Recent incidents caused by flights into volcanic ash clouds.

Types and Hazards

What is a volcanic ash
Types of volcanoes and hazards created

Damages to Aircrafts

Risk associated
Damages created if flying into volcanic ash clouds.

Location

Location of active volcanoes and heights / areas affected.

Detection

How to detect that you have actually entered a volcanic ash cloud.

Publication

How the hazard is published for aviation personnel and which sources exist to get information about active volcanoes.

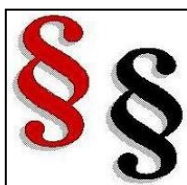### Standard operating procedures

1. pre-flight planning;
2. in-flight monitoring of volcanic ash cloud affected areas and avoidance procedures;
3. diversion;
4. communications with ATC;
5. in-flight monitoring of engine and systems potentially affected by volcanic ash
6. cloud contamination;
7. recognition and detection of volcanic ash clouds and reporting procedures;
8. in-flight indications of a volcanic ash cloud encounter;
9. procedures to be followed if a volcanic ash cloud is encountered;
10. unreliable or erroneous airspeed;
11. non-normal procedures for engines and systems potentially affected by volcanic
12. ash cloud contamination;
13. engine-out and engine relight;
14. escape routes; and
15. operations to/from aerodromes/operating sites contaminated with volcanic ash.
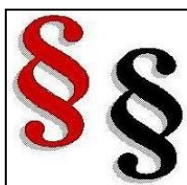
References to Regulations 1/3 - Summary

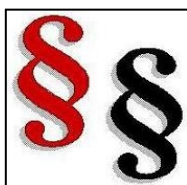**Legal requirements** (EU-Ops, EU Regulation 965/2012)

Item	Regulation / Reference
General: Ck EU VO	All Ground-/Flight-Ops personnel shall be properly instructed (ORO.GEN.110). Refresher training every 12 month (AMC1 ORO.FC.230) or as indicated in the OM-D. Training shall comprise airplane systems, operational procedures incl. ground de-ice/anti-ice and pilot incapacitation) and accident-/incident-/occurrence review (AMC1 ORO.FC.230.a.1). The knowledge shall be verified by questionnaires or other suitable method (AMC1 ORO.FC.230.a.1.ii). The recurrent training is listed in the Oper. Manual Part D (ORO.FC.145.a.1)
ACAS	Pilots training according GM1 CAT.OP.MPA.295 resp. GM1 NCC.OP.220, EU Regulation 1332/2011 (AUR.ACAS.2010), JAA Leaflet No. 11, item 3. Written test according GM1 CAT.MPA.295.g.1 and JAA-Leaflet No.11, item 3.1.
Anti-Ice	According AMC1 ORO.FC.230.a.1.i.B.
ALAR	According AMC1 ORO.FC.230.a.1.i.C. AMC1 ORO.FC.115(f) / 215(f) [initial], Table 1.
CFIT	Training according AMC3 ORO.MLR.100, item 8.3.5 and AMC3 CAT.OP.MPA.115.e.5.i.J (CDFA).
Contaminated Runway	Definitions and procedures according EU Regulation 965/2012. GM1 CAT.GEN.MPA.125.l Taxiing in accordance with surface conditions
Contingency Procedures	Operators shall comply with CAT.POL.A.210.c Take-off obstacle clearance.

References to Regulations 2/3 – Summary

Legal requirements (EU-Ops, EU Regulation 965/2012)

Item	Regulation / Reference
CRM Flight Crews	Training elements according AMC1 ORO.FC.115.g, Table 1 with following minimum training hours according GM3 ORO.FC.115: 1) Multi-pilot operations: • combined training: 6 hours over a period of 3 years; and • initial operator's training: 18 hours, thereof 12 hours in classroom; (2) Single-pilot operations: Initial operator's training: 6 hours.
CRM Cabin Crews	Training elements according AMC1 ORO.CC.115(e).g, Table 1 with following minimum training hours according GM2 ORO.CC.115(e): 1) Multi cabin crew operations: • combined training: 6 training hours over a period of 3 years; and • operator's training: 6 training hours; 2) Single cabin crew operations: 4 hours for aircraft with max. 19 seat.
DGR	Training and test for Load Planners and crew members (pilots and flight attendant). Required for operators with and without approval for transportation of DGs. ORO.GEN.110.j and Technical Instruction (ICAO-TI), every 2 years
ERP	Training is part of the Management system training according ORO.GEN.200(a).4.
Low Visibility	According AMC1 SPA.LVO.120(b), GM1 CAT.GEN.MPA.125.c Initial and recurrent training for flight crews.
MEL	Training according ORO.GEN.110 and AMC1 ORO.GEN.110(e)
MNPS / NAT-HLA	ORO.GEN.110; SPA.MNPS.105.c MNPS , ICAO Nat Doc item 1.3.6
Non-ETOPS	Initial and recurrent training for flight crews according CAT.OP.MPA.140.a.2 and AMC1 CAT.OP.MPA.140(d).e.

References to Regulations 3/3 – Summary

Legal requirements (EU-Ops, EU Regulation 965/2012)

Item	Regulation / Reference
PBN / RNAV	According AMC1 SPA.PBN.105.b, ICAO Doc 9613 "Performance Based Navigation" Vol.II, 5.3.5 (Pilot knowledge and training, for RNP Appr) and JAA TGL 10 (P-RNAV), Item 10.5, EASA AMC 20-4a (Basic RNAV)
Pilot Incapacitation	According AMC1 ORO.FC.230.a.1.i.B, AMC1 ORO.FC.230.c.2, Practical training in FSTD every 3 years, ORO.CC.125.c.2.vii and d.3.iv, Type specific training and operator conversion.
RAAS	See TAWS / EGPWS
Route and Aerodrome Qualification	Applicable for Commanders / PIC in accordance with AMC1 ORO.FC.105(b)(2);(c) Designation as pilot-in-command/commander Lesson is a generic training.
RVSM	Training for pilots according AMC2 SPA.RVSM.105(f), JAA TGL 6 Rev. 1, Appendix 4, item 7 and ICAO Doc 7030 and refresher training according JAA TGL 6 Rev. 1, item 11.3(c),
SAR	Optional to ORO.GEN.200(a).4.
Smoke, Fire & Fume	GM1 ORO.GEN.110.f.c.2, AMC3 ORO.MLR.100.3.b, AMC1 ORO.FC.220 c.2.iii+iv, ORO.CC.125.c.2.v and ORO.CC.125.d.e.1+2, AMC1 ORO.CC.140 .b.2
TAWS EGPWS	Training according Training according AMC3 ORO.MLR.100, item 8.3.5, GM1 CAT.OP.MPA.290 Ground proximity detection and JAA Leaflet No. 27, Guidance for Operators on Training Programmes for the use of Terrain Awareness and Warning Systems (TAWS). Written test according item 3.1.
UPRT	AMC1 ORO.FC.220&230 (more than 19 pax seats) AMC2 ORO.FC.220&230 (less than 20 pax seats)
Volcanic Ash	According ICAO Doc 9691, item 6.7.1 GM2 ORO.GEN.200(a)(3),(e).9

Customer References 1/3

See whom we have been doing business with.

Gruber Aviation is proud to have delivered top-of-class services to operators, service providers, and other aviation organizations from all around the globe.

A-Jet Aviation & Aircraft Maintenance GmbH		Aviation Academy Austria GmbH	
AeronautX Luftfahrtschule GmbH		Avionco - Global Support Services (Bombardier)	
Air Salzburg Luftfahrt GmbH		Bannert Air Aviation	
AIRLINK Luftverkehrs GmbH		Cardinal Aviation AG Basel	**Cardinal Aviation AG**
Airports Council International (ACI)		Common Sky - A & N Luftfahrt GmbH	
Air X Executive Jets GmbH		Comtel-Air Luftverkehr GmbH	
Amira Air GmbH		Donauflug Bedarfsflugges.mbH	
Austro Control GmbH (Austrian CAA)		Emirates – CAE Flight Training Dubai	
Avcon Jet AG		Flight Safety Foundation (FSF)	

See whom we have been doing business with.

Flying Bulls GmbH		Lauda Air Luftfahrt AG	
Geofoto d.o.o. Zagreb		Lauda Motion GmbH	
Goldeck - Flug Gesellschaft m.b.H.		Luxe-Aviation GmbH	
Grossmann Air Services & Co KG		MAGNA Air Luftfahrtgesellschaft m.b.H.	
Group of Aerodrome Safety Regulators (GASR)		MAJESTIC Executive Aviation AG	
International Jet Management GmbH		MAP Management & Planning GmbH	
JET24 GesmbH		MASH Medical Air Shuttle Service Ges.m.b.H	
Jetalliance Flugbetriebs AG		MHS Aviation GmbH	
Jetpool Luftverkehrs GmbH		MJet Aviation GmbH	
Krono Air GmbH	**Krono Air GmbH; Wals**		

Customer References 2/3

See whom we have been doing business with.

My Fair Jet GmbH	
Österreichisches Kuratorium für Flugsicherheit	
Rath Aviation GmbH	
Robin Hood Aviation GmbH	
SalzburgJet Aviation GmbH	
Sicherheits-untersuchungsstelle des Bundes (SUB)	
Sixt Air GmbH	
Sky Flight Academy GmbH	
Sky Taxi Luftfahrt GmbH	

THK Gökcen Havacilik	
Transair Bedarfsflug-unternehmen GmbH	
Tupack Verpackungen GesmbH	
Tyrolean Jet Services	
Vienna International Airport	
Vienna Jet Bedarfsluftfahrt GmbH	
Viennair Luftverkehrsges.mbH	
VistaJet Luftfahrtunternehmen GmbH	