

FAQ table of design change classification (Minor / Major)
Date: 28 November 2019

The following table provides typical examples where an applicant or DOA holder gets help in the decision process to classify a design change as Minor or Major. As this is a living document, changes can be made without expressive notice. Operational aspects are not subject of this table, e.g. change from VFR to IFR.

Abbreviations are explained at the end of the table.

Subject	Classification	Restriction/Assumption	Specific Guidance Material	Notes/Boundaries/Test requirements/Documentation
GPS based Navigator e.g. GTN 6xx/7xx Avidyne 550	Minor	Single Installation no new functionality or technology not linked to Auto Pilot VHF Comms not affected.		for additional installation only, or VFR operation upgrade of operational rule need separate approval BOUNDARIES: SINGLE SYSTEM FOR SITUATIONAL AWARENESS ONLY NOT TOO COMPELLING TO BE USED AS PRIMARY MEANS OF NAVIGATION AND/OR TERRAIN AVOIDANCE NOT TO BE USED FOR PRNAV, RNP OR RNAV APPLICATIONS. NO INTERFACES WITH AUTOPILOT, TAWS OR ADS-B TRANSMITTER TEST REQUIERENTS: NOT SPECIFIED DOCUMENTATION: AFM SUPPLEMENT AS REQUIRED, BASED ON OPERATIONAL USE (EASA FORM 33)

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	Major	Single installation with linkage to Auto Pilot (-> use like FMS) Dual Installation All other RNAV operations	CS-ACNS	BOUNDARIES: NONE TEST REQUIERENTS: NOT SPECIFIED DOCUMENTATION: CERT. PROGRAM
				SSA AFM SUPPLEMENT AS REQUIRED, BASED ON OPERATIONAL USE (EASA FORM 33) ICA
XPDR Mode S, ELS	Minor	No penetration of pressure vessel	CS-ACNS	BOUNDARIES: REPLACEMENT OF EXISTING TRANSPONDER WITH ELS CAPABLE UNIT. NO SUBSTANTIAL CHANGES TO INTERFACING, ANTENNA INSTALLATION. TEST REQUIREMENTS: PER CS-ACNS DOCUMENTATION: AFM SUPPLEMENT (EASA FORM 33) ICA

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XPDR Mode S, Antenna Diversity (ELS)	Minor	If existing antennas can be used, no penetration of pressure vessel, no new antennas	CS-ACNS	NOTE: SIMILAR TO NON-DIVERSITY ELS TRANSPONDER. BOUNDARIES: REPLACEMENT OF EXISTING TRANSPONDER WITH ELS CAPABLE UNIT. NO SUBSTANTIAL CHANGES TO INTERFACING, ANTENNA INSTALLATION. TEST REQUIREMENTS: CS-ACNS DOCUMENTATION: AFM SUPPLEMENT (EASA FORM 33)
	Major	penetration of pressure vessel, new antenna	CS-ACNS	ICA NOTE: NO FLIGHT TEST REQUIRED FOR UPPER ANTENNA BOUNDARIES: NONE TEST REQUIREMENTS: CS-ACNS DOCUMENTATION: CERT. PROGRAM SSA AFM SUPPLEMENT (EASA FORM 33) ICA

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XPDR, Mode S, EHS	Major	No boundaries	CS-ACNS	BOUNDARIES: NONE
				TEST REQUIREMENTS: CS-ACNS
				DOCUMENTATION:
				CERT. PROGRAM SSA AFM SUPPLEMENT (EASA FORM 33) □ ICA
TCAS I or TAS	Minor	No commercial use of the aircraft	TGL not applicable	NOTE: TCAS 1 WHISPER-SHOUT ALGORITHMS ARE A SOURCE OF RF POLLUTION, THEREFORE INSTALLATION OF TCAS 1 IS NOT RECOMMENDED.
				BOUNDARIES: ANTENNA INSTALLATION IN PRESSURIZED A/C IS MAJOR FOLLOW ON INSTALLATION – NO FLIGHT TEST REQUIRED FOR TESTING.
				TEST REQUIREMENTS: • AS REQUIRED TO DEMONSTRATE COMPLIANCE WITH CS-23.1301.
				DOCUMENTATION: ICA AFMS (Form 33) or Operational Procedures

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ACAS (TCAS II)	Major		CS-ACNS	BOUNDARIES: NONE TEST REQUIREMENTS: CS-ACNS DOCUMENTATION: CERT. PROGRAM SSA AFM SUPPLEMENT (EASA FORM 33) ICA
Telemetric Equipment - Flight Inspection Equipment	Major			interface with avionics or new antennas or outside pods or linked to major changes of structures (No interface with avionics, attachment already approved, etc. possibly minor)
COM with 8.33 KHz Channel spacing	Minor	Change of Radios and Radio Tuning/Control Panels, if applicable.	CS-ACNS	LOSS OF ALL COMMUNICATION IS CONSIDERED A MAJOR FAILURE CONDITION. THIS SHOULD BE CONSIDERED WITH THE CLASSIFICATION OF THE CHANGE. BOUNDARIES: • EXCHANGE OF UNITS ONLY. • NO ADDED FUNCTIONALITY • NO CHANGES TO PILOT-SYSTEM INTERFACE TEST REQUIREMENTS: • CS-ACNS DOCUMENTATION: • ICA

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ELT	Minor		BOUNDARIES: NO EXTERNAL ANTENNA NO INTERFACE WITH PRIMARY NAV SYSTEMS. TEST REQUIREMENTS: AS REQUIRED TO DEMONSTRATE COMPLIANCE WITH CS-23.1301. DOCUMENTATION: ICA
Antenna Installation	Major	pressurized vessel installation of large antenna on unpressurized vessel	DOCUMENTATION: • ICA
SATCOM	Minor	Equipment upgrade. (for standard type and for iridium type), no antenna installation. Not for use with ATC communication	NOTES: UPGRADE OF SATCOM EQUIPMENT IS COVERED UNDER MINOR UPGRADE OF AVIONICS (SEE ABOVE). STRUCTURAL ASSUMPTIONS FOR THE INITIAL INSTALLATION NEED TO BE CONSIDERED
	Major	for standard type and iridium type (if new antenna installation on pressurized vessels)	BOUNDARIES: NONE. TEST REQUIREMENTS: AS REQUIRED DOCUMENTATION: CERT. PROGRAM SSA

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steep approach Major Steep approach Major Mote: Mote: NOTE: Will Need EASA PANEL 1 BOUNDARIES: NONE. TEST REQUIREMENTS: As REQUIRED

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DOCUMENTATION:

SSA

OSD

CERT. PROGRAM

AFM SUPPLEMENT (EASA FORM 33)

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Acronyms:

ACIONYIIIS.	
A/C	Aircraft
A/P	Autopilot
ACAS	Airborne Collision Avoidance System
ADS-B	Automatic Dependent Surveillance-Broadcast
AFM	Airplane Flight Manual
AFMS	Airplane Flight Manual Supplement
AMC	Acceptable Means of Compliance
AOA	Angle of Attack
BRNAV	Basic Area Navigation
CAT	Category (for All-Weather Operations)
CERT	Certification
COM	Communication
CPR	Changed Product Rule
CRI	Certification Review Item
DOA	Design Organization Approval
EFB	Electronic Flight Bag
EGPWS	Enhanced Ground Proximity Warning System
EHS	Enhanced Surveillance
ELS	Elementary Surveillance
ELT	Emergency Locator Equipment
EVS	Enhanced Vision System
FAQ	Frequently Asked Questions
FL	Flight Level

GPS	Global Positioning System		
HUD	Head-Up-Display		
ICA	Instruction for Continued Airworthiness		
IFE	Inflight Entertainment system		
IFR	Instrument Flight Rules		
KHz	Kilo Hertz		
KTS	Knots		
LNP	Lateral Navigation Performance		
NAV	Navigation		
PRNAV	Precision Area Navigation		
RAAS	Runway Awareness and Alerting System		
RF	Radio Frequency		
RVSM	Reduced Vertical Separation Minima		
SATCOM	Satellite Communication		
SBAS	Space Based Augmentation Signal		
SSA	System Safety Assessment		
SVS	Synthetic Vision System		
TAS	Traffic Advisory System		
TAWS	Terrain Awareness Warning System		
TCAS	Traffic and Collision Avoidance System		
TGL	Temporary Guidance Leaflet		
UNS-xxx	A Universal Brand Name		
VFR	Visual Flight Rules		

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FMS	Flight Management System
GA	General Aviation
GM	Guidance Material
GNS-xxx	A Garmin Brand Name