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REPUBLIC OF COSTA RICA
CIVIL AVIATION AUTHORITY COSTA RICA
Navigation Services Department
Aeronautical Information Services
P.O. BOX 5026 -1000
SAN JOSE – COSTA RICA



AIC
Series A
13
14 NOV 2018

CNS

TECHNICAL SPECIFICATIONS ILS / DME IOCO
JUAN SANTAMARÍA INTERNATIONAL AIRPORT

The Civil Aviation Authority informs the aeronautical industry, the technical specifications of the ILS / DME IOCO, with which navigation services are provided at the Juan Santamaria International Airport.

General technical characteristics ILS / DME IOCO	
Location Coordinator	09°59'57,28N 084°11'40.11W
Site elevation Locator	937 msnm
Glide Path/DME Coordinate	09°59'21.07N 084°13'08.63W
Elevation of the Glide Path / DME site	899,01 msnm
Magnetic variation	1.75° (Year 2018)
Sense of Magnetic variation	West
Equipment configuration	Double
MTBO (operational)	LLZ 4000 h; GP 2000 h
Integrity	LLZ 1– 0.5 x 10 ⁻⁹ ; GP 1– 0.5 x 10 ⁻⁹
Continuity of service	LLZ (30 s) 1– 2 x 10 ⁻⁶ ; GP (15 s) 1– 2 x 10 ⁻⁶

Technical characteristics Glide Path IOCO	
Frecuency	332.6 MHz
Caller ID	IOCO
Model	THALES 420
Type	Cat I / Dual transmitter/dual monitor
Glide Path Coverage	10 NM
Angle Glide Path	3 grades
Frequency stability	±0.002 %
CSB power output Course / Clearance	0 to 5 W
90/150 Hz tone tolerance - Cat I / II	90/150 Hz ±1.5 %
90/150 Hz Course / Clearance Modulation depth	40 ±2.5 %
SDM for course	80%
SDM for clearance	80%
DDM	0 %
SBO Output Signal	SBO signal 90 Hz and 150 Hz above and beneath the carrier frequency
SBO Output Power	0 to 1.5 W in steps of 0.1 %



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Technical characteristics IOCO Locator	
Frequency	109.5 MHz
Caller ID	IOCO
Model	THALES 420
Type	CAT I / Dual transmitter/dual monitor
ILS Coverage	25 NM within $\pm 10^\circ$ 17 NM between 10° and 35° 10 NM $> \pm 35^\circ$
Frequency stability	± 0.002 %
CSB power output Course/Clearance	0 to 25 W
Identification Tone	1020 ± 50 Hz
90/150 Hz tone tolerance – Cat I/II	90/150 Hz ± 1.5 %
90/150 Hz Course/Clearance Depth of modulation	20 ± 2 %
SDM for course	40%
SDM for clearance	40%
DDM	0%
SBO Output Signal	SBO signal 90 Hz and 150 Hz above and beneath the carrier frequency
SBO Output Power	0 to 1.5 W, in steps of 0.1%

Technical characteristics DME IOCO	
Response Frequency	993 MHz
Interrogation Frequency	1056 MHz
Channel	32X
Model	THALES DME 435
Type	1KW Dual
Caller ID	TIO
Nominal power	1 KW
Interrogation Pulse	12 microseconds
Response delay	50 microseconds
MTBO	70334 hrs
MTBF	6548 hrs
Frequency stability	0.0010%
Polarization	Vertical
VSWR	2:1
Coverage	$\pm 0,12$ NM +0.05% of distance Less than 65 NM ± 0.17 NM +0.05% of distance Greater than 65 NM