



# **EN RUTA**

## **ENR 4**

## ENR 4. RADIOAYUDAS Y SISTEMAS DE NAVEGACIÓN

## ENR 4.1 RADIOAYUDAS PARA LA NAVEGACIÓN – EN RUTA

Nombre de la estación	ID	Frecuencia (CH)	Horas de funcionamiento	Coordenadas	ELEV Antena DME	Observaciones
1	2	3	4	5	6	7
<b>COBIJA</b>						
Cap. Av. Civ. Aníbal Arab Fadul DVOR/DME	CIJ	112,3 KHZ	H24	11 03 19S/068 47 09W		
COCHABAMBA Jorge Wilstermann VOR/DME	CBA	112,1 MHZ CH 58X	H24	17 25 17S/066 10 44W	2 548 M	
<b>LA PAZ</b> El Alto DVOR/DME	PAZ	115,7MHZ CH 104X	H24	16 30 43S/068 14 01W	4 060 M	ILS CAT 1 RWY 10 GP Angulo 2.4°
LLZ/ILS	ILPA	110,3 MHZ	H24	16 30 50S/068 10 10W		
GP/DME		335,0 MHZ CH 40X	H24	16 30 42S/068 12 28W		
MM		75 MHZ	H24	16 30 45S/068 13 15W		
<b>ORURO</b> Juan Mendoza DVOR/DME	ORU	113,0 MHZ CH 77X	H24	17 58 48S/067 04 37W	3 708 M	Cobertura 100NM
<b>POTOSI</b> Cap. Nicolás Rojas DVOR/DME	PTS	114.9 MHZ CH 96X	H24	19 31 26S/065 41 32W	3 947 M	Cobertura 50 NM *SAT y SUN O/R
<b>UYUNI</b> La Joya Andina VOR/DME	UNI	116,0 MHZ CH 107X	H24	20 27 12S/066 50 10W	3 718 M	Cobertura 100NM
<b>SUCRE</b> Alcantarí VOR/DME	ALC	113.4 MHZ CH 81X	H24	19 16 04S/065 08 35W	3 119 M	Cobertura 100NM
ILS/LOC GP/DME	ILCA	109.9 MHZ 333.8 MHZ CH 36X	H24 H24	19 13 10S/065 09 11W 19 15 07S/065 08 51W		GP Angulo 3.3°

<i>Nombre de la estación</i>	<i>ID</i>	<i>Frecuencia (CH)</i>	<i>Horas de funcionamiento</i>	<i>Coordenadas</i>	<i>ELEV Antena DME</i>	<i>Observaciones</i>
1	2	3	4	5	6	7
<b>SANTA CRUZ</b> Viru Viru VOR/DME	VIR	113,8 MHZ CH 85X	H24	17 37 34S/063 08 52W	368.19 M	Cobertura 200NM
ILS/LOC	ILVV	110,9 MHZ	H24	17 37 45S/063 08 45W		ILS CAT 1 RWY 34
GP/DME		330,8 MHZ CH 46X	H24	17 39 17S/063 07 37W		GP Angulo 3°
<b>TARIJA</b> Cap. Av. Oriel Lea Plaza VOR/DME	TAR	117,0 MHZ CH 117X	H24	21 32 47S/064 42 46W	1 860 M	
<b>TRINIDAD</b> Tte. Av. Jorge Henrich VOR/DME	TRI	115,9 MHZ CH 106X	H24	14 47 57S/064 56 17W	160 M	

**ENR 4.4 DESIGNADORES O NOMBRES EN CLAVE  
PARA PUNTOS SIGNIFICATIVOS**

Designador	Coordenadas	Ruta ATS u otra ruta	Designador	Coordenadas	Ruta ATS u otra ruta
1	2	3	1	2	3
AKRIM		T521-UT521	BURDO		UL797-UN525
141430S-0653444W			192148S-0655232W		
AKRUD		T521-T532-T711-UT521-UT711	BUTIN		UL540-UM657
112342S-0685059W			192027S-0650058W		
AKSIS		UL309-UM415-UT711	BUVKI		UZ76
160436S-0681240W			103435S-0652446W		
AKTUN		UW6-UM548	BUVNO		T521-T532-T711-UT521
192044S-0661507W			110226S-0684701W		UT711
AKVAG		UL540-UM776-UP408	BUXOR		UM548
204621S-0664141W			213906S-0622724W		
ALBEG		UL309-UM784	COCHABAMBA (CBA)		T527-T712-T714-W11-W12-
124916S-0680242W			172517S-0661045W		W22-UW12-UW22-UW677-
ALCANTARI		W14-W18-W22-UW14-UW18			UM793-UN525-UT712
191604S-0650835W		UM657-UW22	CITRA		UN525
ALGIP		UL216-UM411	104123S-0674244W		
185045S-0583822W			CORUMBA (CUB)		A304
ANBUN		N650	190100S-0573948W		
185658S-0632134W			DADED		UZ76
ANPOP		UW29-UM402	100858S-0665335W		
185119S-0581808W			DAKOG		UW677-UM793
ANSOD		T510-T532-UT510	165346S-0672156W		
110036S-0660422W			DAKRO		UM540
ARMUK		UL216	194744S-0653042W		
132856S-0613330W			DARLA		UM548-UN525
ARPIS		W6-UW6	193547S-0655021W		
171632S-0674158W			DDDDD		UL540
ARSUN		UM548-UM664	164603S-0620445W		
172852S-0691913W			DEVUR		A568-UM664-UP408
ARUBO		UW6-UL540-UN525	171051S-0685901W		
200201S-0654616W			DIBAS		UM415
ASETO		UW316-UL417	171310S-0642836W		
205554S-0642802W			DIBUG		UM784-UN525
BITOT		UM415-UN525	151056S-0664120W		
163840S-0662121W			DOBNI		UM415
BOGUB		UW16-UL797-UM776-UP408	154307S-0692254W		
200348S-0665828W			DOLGI		A304-T527-T719-UW29-UL417
BOKAP		T711-UL309-UM668-UT711	170428S-0653958W		
141605S-0680708W			DOLPU		UL417-UM548
BOLET		UL404-UM548-UM784	201848S-0643934W		
211827S-0630124W			DOPGO		UL417-UM657
BORAM		UW6-UL797	192244S-0645659W		
193126S-0660739W			EDLOX		UW316-UM657

Designador	Coordenadas	Ruta ATS u otra ruta	Designador	Coordenadas	Ruta ATS u otra ruta
1	2	3	1	2	3
	195340S-0640312W		GAXUS		A304-T543-UW29
EDMOT		UN525-UT521		184821S-0582952W	
	124815S-0671350W		GEBAS		UW29-UL216
EDRUS		UM402-UM411		184528S-0584115W	
	185637S-0581730W		GEKOR		UL309-UM548-UP408
EDSOV		A430-T532		180229S-0682354W	
	105737S-0654720W		GELAS		UL417-UT712-UT716
EGUTA		T714-W18		174011S-0652852W	
	174802S-0664719W		GESPA		UN525
EKAVI		W12-UW12		220518S-0652700W	
	153450S-0651448W		GUAJARA (GJM)		A685
EKIKO		UL797		104704S-0651652W	
	182204S-0641845W		GRAFO		UL309
ELAKO		A304-UM657		103834S-0675601W	
	155536S-0691818W		GUVAS		UW29-UM784
ELAMU		T711-W27-UL309-UT711		170533S-0653500W	
	153534S-0681111W		ILNEK		UL417-UT521
ENTOM		T543		130513S-0665420W	
	185832S-0574912W		ILPAN		UM784-UT712-UT716
EMPEX		UL309		173955S-0651408W	
	203043S-0683954W		ILPEM		UL797
EROGI		UL540-UM668		205742S-0682306W	
	151754S-0601502W		ILRES		UL322
ESDUM		A573-UP408-UP673		130924S-0622112W	
	170010S-0690617W		ILSOP		UL322-UM657
ESELA		UM657		195901S-0635353W	
	205700S-0621300W		IMBAM		UW16-UM548-UM776
ESMEL		UW316-UM548		183521S-0672949W	
	203141S-0641822W			171536S-0614823W	
ESMUR		UL322-UL417	IREDO		A301-UN420
	212123S-0642007W			153043S-0642912W	
EVLOL		UM411	IRESU		UL322
	190448S-0574821W			185425S-0633320W	
FILHO		A685	IRIVA		UW568
	101143S-0665838W			151138S-0654150W	
FLOTE		A430-UM775	IROBO		UL309
	101720S-0670539W			172539S-0681956W	
GAVOS		A304-T543-UW29-UM411	ISARA		UL417
	175808S-0614749W			103624S-0674036W	
GAXAN		T532	ISMID		W6-W14-UW6-UW14
	112205S-0683919W			194458S-0655811W	
GAXOK		UL322	ISNIG		T527-T723-T735
	221312S-0643636W		Designador	Coordenadas	Ruta ATS u otra ruta

1	2	3
	165839S-0650840W	
<b>IVSIX</b>		UW22-UL540
	192545S-0650645W	
<b>IVSOS</b>		UW14-UN525
	193817S-0654958W	
<b>KABOM</b>		UL404
	185751S-0630610W	
<b>KADOX</b>		UL417-UM668
	143247S-0662707W	
<b>KAGIK</b>		T725
	161138S-0674318W	
<b>KETIP</b>		A301-UN420
	140438S-0652221W	
<b>KIBID</b>		UN525-UT716
	174425S-0660745W	
<b>KIBUX</b>		UM776
	153928S-0683517W	
<b>KIGAX</b>		UW568
	160433S-0672339W	
<b>KILEV</b>		UM784
	105854S-0690604W	
<b>KILOL</b>		M653
	113050S-0651627W	
<b>KONDU</b>		M653-T532-T725
	105320S-0652254W	
<b>KONPI</b>		T730
	214427S-0641304W	
<b>KOMPA</b>		UM793
	162830S-0690000W	
<b>KOSBO</b>		T712-T716-UT712-UT716
	173908S-0643238W	
<b>KOTKI</b>		W22-UW22
	210310S-0644822W	
<b>KOVKO</b>		M653
	110618S-0651856W	
<b>KOXIV</b>		A430-T725
	111002S-0652312W	
<b>LA PAZ (PAZ)</b>		A304-A568-A573-T711-T719
	163043S-0681401W	T725-W6-W11-W16
		UW18-UW29-UW568-UW677
		UL309 - UM657 - UM664
		UM776-UM793-UP673-UT711
<b>LIVET</b>		UL417-UL540
	191807S-0645826W	
<b>Designador</b>	<b>Coordenadas</b>	<b>Ruta ATS u otra ruta</b>

1	2	3
<b>LOBON</b>		UL216-UM668
	151544S-0603523W	
<b>LODAK</b>		T734-W8-UW316
	185237S-0633850W	
<b>LODON</b>		T716-W18-UW18-UM657-
	175301S-0664144W	UT716
<b>LOKOX</b>		W12-UW12-UL417-UM415-
	164957S-0654429W	UM784
<b>MAKPI</b>		UL797-UM548
	192817S-0660242W	
<b>MALVA</b>		UW568-UM784
	153517S-0662721W	
<b>MATGO</b>		UL540-UM784
	185213S-0643013W	
<b>MIKAL</b>		T510-UT510
	135945S-0651043W	
<b>MOMDI</b>		A556-UN420
	193741S-0614255W	
<b>MOSGO</b>		UW29-UN525
	165617S-0661721W	
<b>MULOG</b>		UL540
	183311S-0640928W	
<b>MUNET</b>		T712-T716-UT712-UT716
	174021S-0653739W	
<b>NAXEV</b>		A301-T532
	110924S-0670747W	
<b>NEGAX</b>		UW568-UN525
	153913S-0663454W	
<b>NESKI</b>		UM415-UM776
	160020S-0682637W	
<b>NETPA</b>		UW677-UM784-UM793
	172838S-0652059W	
<b>NETSU</b>		UL322-UM548
	203851S-0640634W	
<b>NIDRO</b>		UW14-UM548
	193660S-0654822W	
<b>NIGVA</b>		A430-M653
	111233S-0651818W	
<b>NILSO</b>		UL322-UM668
	150220S-0624117W	
<b>NIRBO</b>		UW568-UL417
	152629S-0661026W	
<b>NUVUD</b>		UW14-UL417
	190950S-0650100W	
<b>Designador</b>	<b>Coordenadas</b>	<b>Ruta ATS u otra ruta</b>

1	2	3	1	2	3
OBKUL		UM668-UM784		210436S-0643131W	
	142606S-0670705W		PUNAV		A304-T719-W12-UW12-UW29
OBLIR		UM668		170135S-0655308W	
	140842S-0685118W		PUPON		UL404
OGRON		UW316-UM784		220000S-0630000W	
	194326S-0635907W		RAXUN		UM776
OGMET		A301-T725		142654S-0690525W	
	134959S-0653110W		RIO BRANCO		A301-A430-A685-UL309
OPRIT		T725		095234S-0675419W	UL417-UM775-UN420
	134542S-0652605W				UN525-UZ76
OPTIM		W14-UW14	REDIR		T725
	185622S-0644438W			155436S-0673046W	
ORALO		A573-UM548-UP673	RIXUM		T521-T725
	171746S-0693730W			140333S-0654719W	
OROMU		UL793	ROBOK		UL309-UT521
	193154S-0610536W			120735S-0680034W	
ORURO		T714-T716-UT716	ROKES		UW29-UL793-UM411
	175848S-0670437W			120735S-0680034W	
PAKES		A301-UN420	SALBI		A304-T723-UW29
	162858S-0635219W			171942S-0643028W	
PALIV		UL322-UM784	SANSO		W11-UW677-UM793
	195426S-0635226W			173155S-0643225W	
PAMAR		UW18-UM657-UN525	SASNO		UL540-UL793
	182936S-0660042W			163231S-0614754W	
PAMOG		T725	SAVRA		UL797-UM784
	145128S-0664419W			183545S-0644013W	
PAPEK		UM668-UN525	SEDMA		UL322
	142848S-0665056W			161824S-0625448W	
PILCO		UM784	SIDAK		UL216-UM402-UM415
	222416S-0622505W			193821S-0581228W	
POPRU		W14-UW14	SIKOL		W16-UW16-UM776
	182957S-0641232W			172259S-0675529W	
PORKI		T712-T716-UT712-UT716	SILIC		UM775
	174038S-0655245W			111039S-0652202W	
POTBO		UW14-UM784	SINIT		W6-UW6
	184705S-0643321W			210737S-0650023W	
POTOSI (PTS)		W14-UW14	SIRAD		A304-T719-W22
	193126S-0654132W			165446S-0662413W	
PUBUM		UL417	SORSU		UW22-UM548
	221430S-0640336W			200701S-0645858W	
PUDED		UM657-UM784	SOTKU		UL540
	200245S-0634723W			215200S-0680345W	
PULSA		T734-W8-UW316	SULGA		N650
Designador	Coordenadas	Ruta ATS u otra ruta	Designador	Coordenadas	Ruta ATS u otra ruta

1	2	3
	200025S-0633143W	
<b>SUMGO</b>		UW568-UM415
	161402S-0674153W	
<b>SURKO</b>		A556-UN420
	184352S-0622126W	
<b>TARIJA</b>		T730-T734-W6-W8-W22
	213248S-0644246W	UW6-UW22-UW316
<b>TEDOK</b>		UW677-UM793
	171034S-0664358W	
<b>TEPUG</b>		UL793-UM668
	150550S-0620820W	
<b>TERAX</b>		A304-T719-UW29
	164258S-0671809W	
<b>TEREP</b>		W11
	171747S-0664630W	
<b>TINPO</b>		T521
	164258S-0671809W	
<b>TOLIP</b>		UW18-UL797-UM657
	190305S-0652309W	
<b>TOMUR</b>		UM415
	180901S-0615141W	
<b>TRINIDAD (TRI)</b>		A301-M653-T510-T521-T735-
	144757S-0645617W	W12-UW12-UW568-
		UM668-UN420-UT510-UT521
<b>UBLEX</b>		M653
	135759S-0650124W	
<b>UBKAB</b>		UM402
	161854S-0583631W	
<b>UBMAN</b>		UW22-UL797
	185940S-0651747W	
<b>UBSAS</b>		UM776-UP408
	214825S-0661414W	
<b>UBSUR</b>		T735
	153757S-0650101W	
<b>UDIDI</b>		UL793
	130236S-0623724W	
<b>UGVAX</b>		N650-T730
	215745S-0633907W	
<b>UKARO</b>		T510-T725
	131038S-0652526W	
<b>UKDOR</b>		UL404-UM657
	202812S-0630306W	
<b>UKEKU</b>		UL216-UL540
	152837S-0602822W	
<b>Designador</b>	<b>Coordenadas</b>	<b>Ruta ATS u otra ruta</b>

1	2	3
<b>UMGEV</b>		W22-UW22
	194543S-0650259W	
<b>UYUNI</b>		W14-W16-UW14-UW16-
	202712S-0665010W	UM776-UP408
<b>URIXA</b>		T725-W22
	152040S-0670548W	
<b>URODA</b>		W22-UW22
	175613S-0655323W	
<b>USVES</b>		W22-UW22
	184930S-0652329W	
<b>VAGUR</b>		A568-UM664
	173522S-0692630W	
<b>VALUS</b>		UL417-UL797
	185226S-0650625W	
<b>VAPAS</b>		W11-W18-UW18-UM657
	170815S-0673156W	
<b>VAREB</b>		W11-UW677-UL417-UM793
	172751S-0653242W	
<b>VAROM</b>		UL322-UL793
	134442S-0622728W	
<b>VILUX</b>		A301-UN420
	102832S-0673222W	
<b>VIRU VIRU (VIR)</b>		A301-A304-A556-N650
	173734S-0630852W	T543-T712-T716-T723-T734-
		W8-W11-W14-UW14-UW29
		UW316-UW677-UL322-
		UL404-UL540-UL797-UM411
		UM415-UM793-UN420-
		UT712-UT716
<b>VUMOS</b>		T716-W22-UW22-UT716
		174242S-0660058W
<b>VURNA</b>		W18-UW18-UM657
	185528S-0653141W	
<b>VURUS</b>		UP408
	165003S-0691309W	
<b>XOKUB</b>		W22
	154718S-0665402W	
<b>XOLAT</b>		UL793-UM415
	182059S-0612219W	



**PAGINA DEJADA INTENCIONALMENTE EN BLANCO**