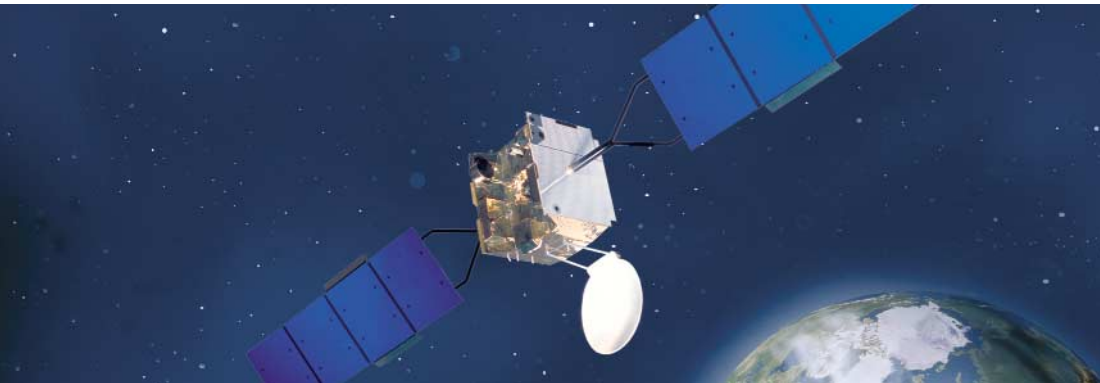


ASTRA 1B - 19.2° EAST



PUBLISHED

FEBRUARY 2003



Direct-to-Home services

The ASTRA 1B satellite is located at 19.2° East, ASTRA's prime orbital position for Direct-to-Home services, providing capacity mainly for the transmission of broadcast and broadband multimedia services to consumer audiences in continental Europe.

SATELLITE INFORMATION

Satellite launch information

Launch date: 02.03.1991
 Launch vehicle: Ariane 44 LP, Flight V 42
 Launch site: Kourou, French Guiana
 Launch mass: 2617 kg

Satellite orbital information

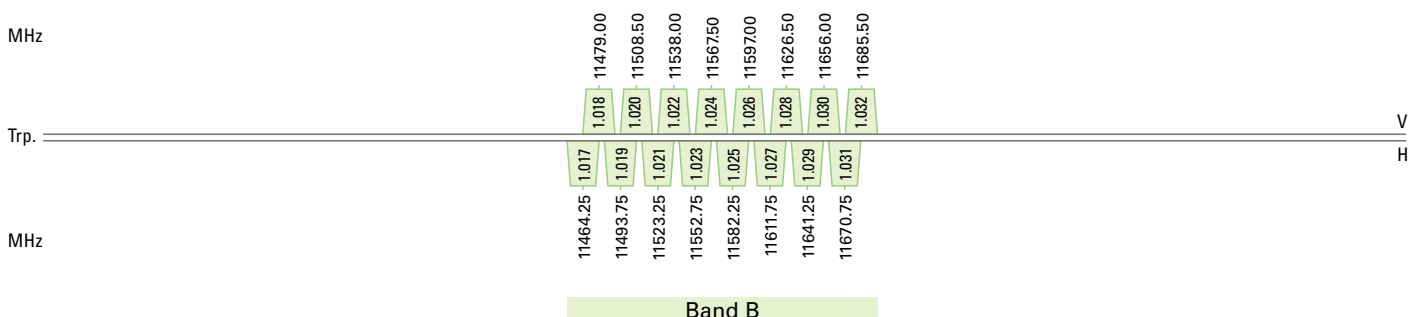
Satellite manufacturer: GE Astro Space
 Orbital location: 19.2° East
 Stabilization system: 3 axis type
 Expected lifetime: in excess of 12 years
 Total power consumption: 3400 Watts

Satellite transponder information

Transponder capacity: 13
 TWTA output power: 60 Watts
 EIRP: 51 dBW
 All transponders are eclipse protected
 Transponder bandwidth: 26 MHz

CHANNEL CAPACITY

11.45 - 11.70 GHz: 16 channels (Band B)
 Channel Number Allocation and Downlink Centre Frequencies



ASTRA 1B FOOTPRINTS



Typical dish sizes:

60 cm

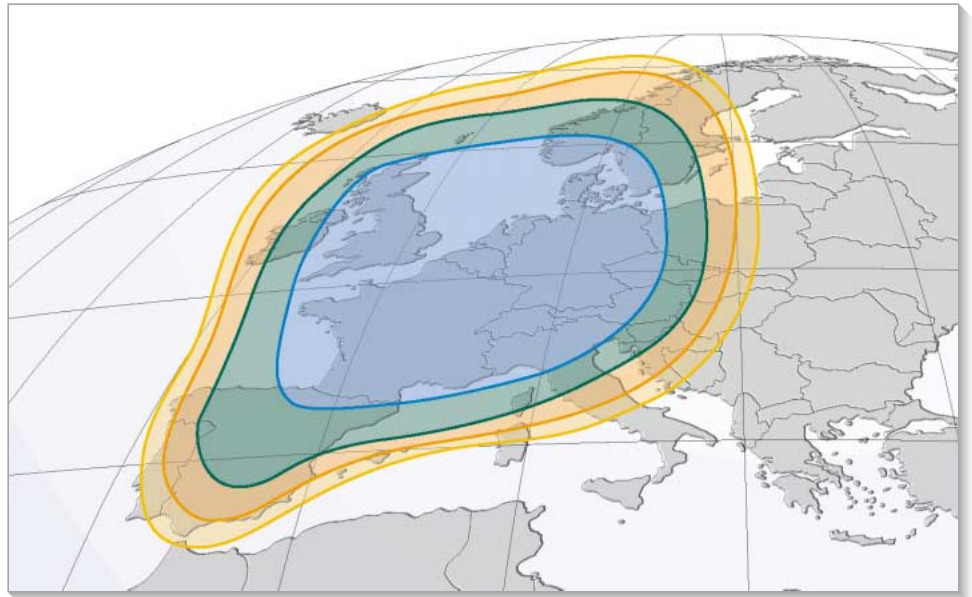
75 cm

90 cm

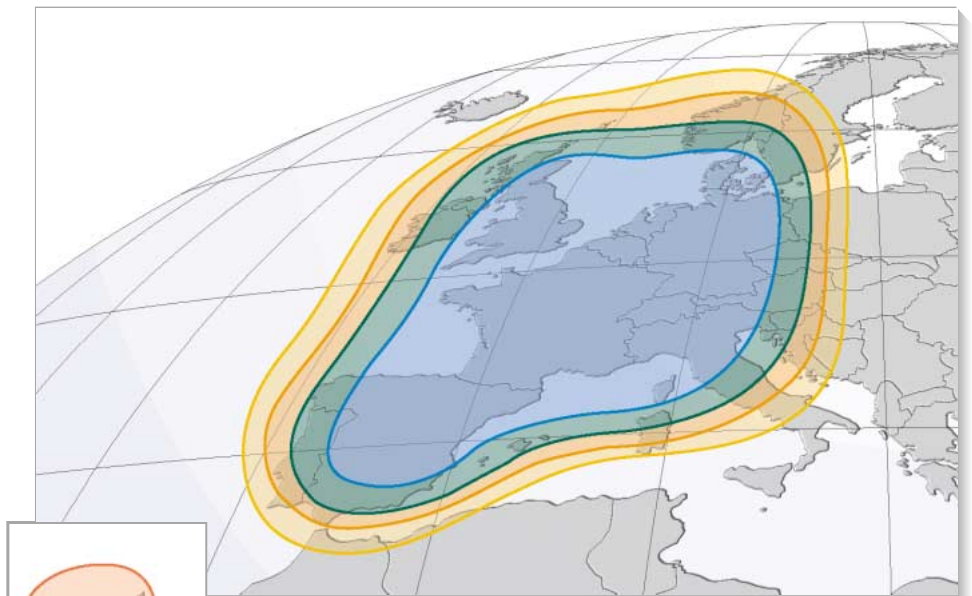
100 cm

120 cm

Horizontal Polarization Mode 1



Vertical Polarization Mode 1



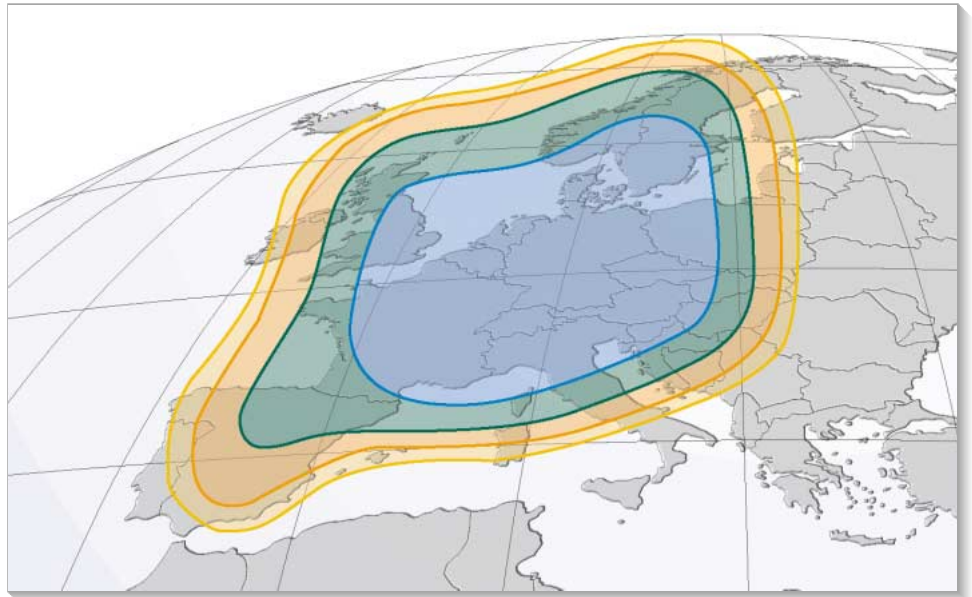
Canary Islands Beam

ASTRA 1B FOOTPRINTS

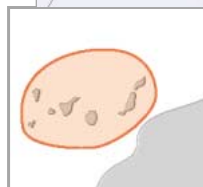
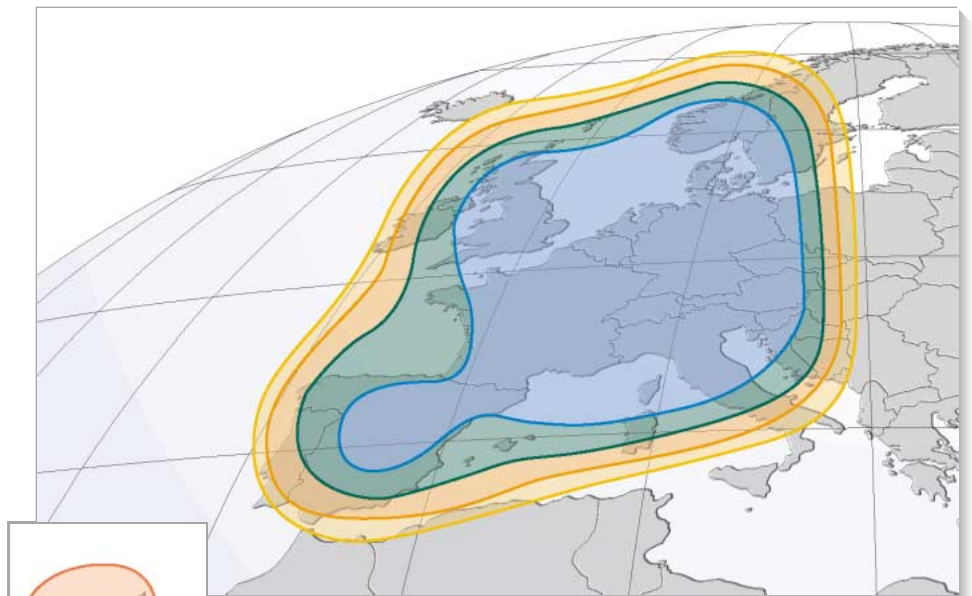


The size of the satellite dish required to receive transmissions from the ASTRA satellites depends on the transponder polarization and the mode (1, 2) as well as on the geographical location of the dish. The ASTRA 1B satellite uses various antenna modes and two polarizations, resulting in a number of footprints for each satellite.

Horizontal Polarization Mode 2



Vertical Polarization Mode 2



Canary Islands Beam

ASTRA ORBITAL POSITIONS AND BACK-UP – SAFEGUARDING REVENUE

By co-locating satellites at one orbital position, ASTRA can offer easy ways of expanding service ranges and highest transmission security.

The key advantage is that audiences can use the same direct-to-home reception equipment when broadcasters and broadband service providers extend their services at the same orbital position.

The ASTRA satellite system through its co-located satellites at prime orbital positions also has the strength to

provide a unique form of in-orbit back-up. If for any reason, a transponder is switched off, a back-up transponder on the same satellite or a co-located satellite can be immediately activated. The back-up system can therefore guarantee high operational security and continuity of service for both our customers and the end consumer.

Freq. (GHz)	10.70	10.95	11.20	11.45	11.70	12.10	12.50	12.75	29.50	30.00
	Band D	Band C	Band A	Band B	Band E	Band F	Band G		Ka Band	
ASTRA 1B				✓						
ASTRA 1C		✓	✓							
ASTRA 1E	✓	✓		✓	✓					
ASTRA 1F			✓		✓	✓				
ASTRA 1G					✓	✓	✓	✓		
ASTRA 1H					✓	✓	✓	✓		
ASTRA 2C	✓	✓			✓	✓			✓	
	Low Band (64 transponders)				High Band (56 transponders)			Ka Band (2 transponders)		

Updates of footprints, transponder lists and frequency plans, the complete ASTRA channel line-up and more information about SES ASTRA, the ASTRA Satellite System and ASTRA products and services can be found on www.ses-astra.com or contact us:

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