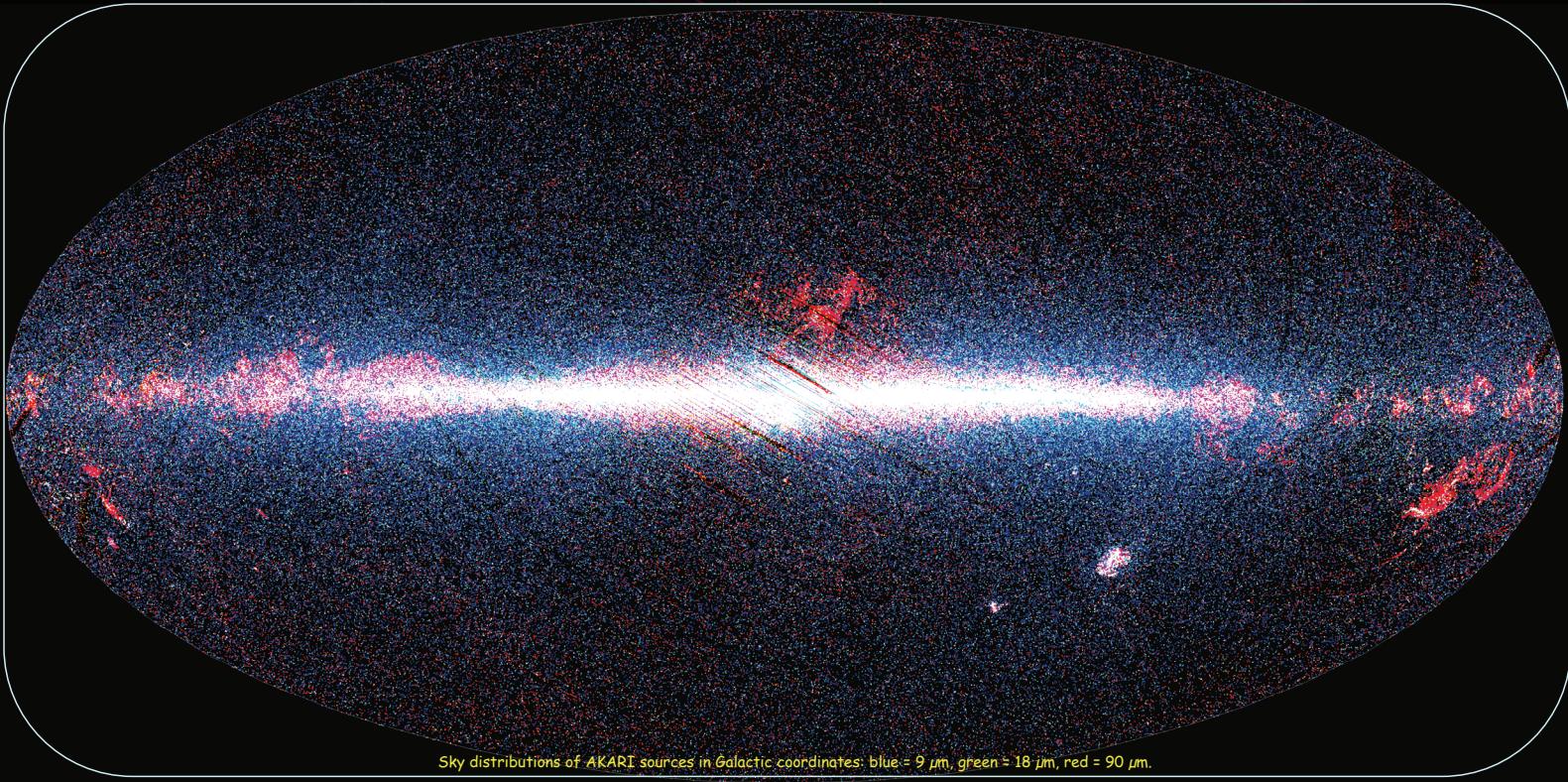


Sky image at 9 μm

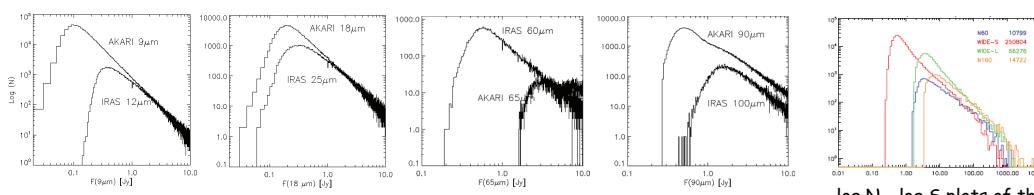
AKARI, the Japanese astronomical satellite operated in collaboration with **ESA**, was launched in February 2006 and performed an all-sky survey over 16 months from May 2006 to August 2007. The satellite is equipped with a 68.5 cm cooled telescope and two instruments, the Infrared Camera (1.8–26 micron) and the FIS (50–180 micron). The AKARI All-Sky Survey was made in six wavelength bands in the mid-infrared (9 and 18 micron) and far-infrared (65, 90, 140, 160 micron). More than 96 per cent of the entire sky was covered for at least two independent orbits.

The point source catalogues from the survey have been first released in March 2010. The mid-infrared catalogue includes about 870,000 sources with the detection limit of 50 mJy at 9 micron. The far-infrared bright source catalogue contains about 430,000 sources, brighter than 0.55 Jy at 90 micron. With the better spatial resolution and sensitivity, the AKARI catalogues are superior to IRAS after more than 25 years and shall be used as a standard database for astronomy. The catalogues are also best suited for the planning of Herschel observations. Various follow-up observations with Herschel are also expected.



Sky distributions of AKARI sources in Galactic coordinates: blue = 9 μm , green = 18 μm , red = 90 μm .

	IRC PSC V1		FIS BSC V1			
Band	9 μm	18 μm	65 μm	90 μm	140 μm	160 μm
Number of sources	844,649	194,551	29,336			373,819
	870,973		117,994			
Detection Limit	50 mJy	130 mJy	3.2 Jy	0.55 Jy	3.8 Jy	7.5 Jy
Flux Uncertainty	5~20 %	7~20 %	20 %			
Spatial Resolution	~7 arcsec		~48 arcsec (source extraction)			
Position Uncertainty	1~3 arcsec		~ 6 arcsec			

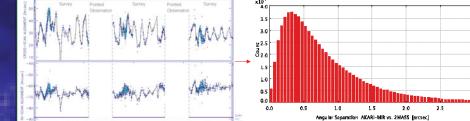


log N - log S plots of IRC and FIS catalogues, in the overlapping IRAS bands. The AKARI survey significantly surpasses IRAS in sensitivity in three bands.

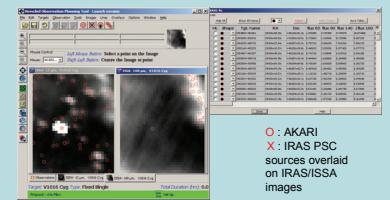
ESA collaboration on AKARI

Ground station coverage (from Kiruna, for several passes per day) and pointing reconstruction for survey, in return for 10% of pointed observations: 3 AO's, resulting in ~400 observations in the cryogenic phase and 850 observations in the warm phase.

Pointing Reconstruction: from 30 arcsec to <3 arcsec positional accuracy



AKARI Catalogues in HSPOT



log N - log S plots of the FIS catalogue sources (normal mode)

The catalogues are distributed as files and via a web query system. The DARTS-Catalogue Archives (CAS) by CSODA-ISAS/JAXA provides various tools to access the data with links to other astronomical resources.

<http://www.ir.isas.jaxa.jp/AKARI/Observation/>
<http://darts.isas.jaxa.jp/astro/akari/>

The catalogues are also available at CDS/Vizier, Aladin, Topcat, etc.