

Addendum to Description of GMS-5 Nominal Calibration

GMS-5 began operations in June 1995 using the initial operational calibration coefficients for the nominal calibration. After comparing simultaneous observations at the “window” infrared wavelength (nominally at 11.5 μm) from GMS-4 and GMS-5 in August 1996, the Japan Meteorological Agency adjusted the nominal GMS-5 calibration coefficients for both this channel and the new “water vapor” channel (6.9 μm nominal wavelength) slightly. All data after 1 December 1996, including the ISCCP B3 data, use these new coefficients. However, the ISCCP B3 data before this date use the old calibration coefficients for the nominal calibration, which are then normalized to the reference calibration by comparison with NOAA-14 observations. If the ISCCP calibration coefficients (either normalized or absolute) for GMS-5 are to be applied to data from before this date that have been obtained from any other source, the data need to be checked to determine which calibration coefficients have been used. If the new calibration coefficients have been used, then the brightness temperature values must be adjusted **by subtracting** the values in the following table before employing the ISCCP coefficients.

Table: Change in GMS-5 brightness temperatures from before 1 December 1996 needed to convert from the new calibration back to the old calibration. First table is for the 11.5 μm channel (detector 2) and the second table is for the 6.9 μm channel.

Month/Year	200K	220K	240K	250K	280K	300K	320K
IR 2							
Jun 95	1.0	1.2	1.4	1.5	1.9	2.1	2.4
Jul 95	1.0	1.2	1.4	1.5	1.9	2.1	2.4
Aug 95	0.9	1.1	1.3	1.5	1.8	2.0	2.3
Sep 95	0.8	1.0	1.2	1.4	1.6	1.8	2.0
Oct 95	0.8	0.9	1.1	1.3	1.5	1.7	1.9
Nov 95	0.7	0.8	1.0	1.2	1.3	1.5	1.7
Dec 95	0.7	0.8	1.0	1.1	1.3	1.5	1.7
Jan 96	0.7	0.8	1.0	1.1	1.3	1.5	1.7
Feb 96	0.7	0.8	1.0	1.1	1.3	1.5	1.7
Mar 96	0.7	0.9	1.0	1.2	1.4	1.6	1.8
Apr 96	0.8	0.9	1.1	1.3	1.5	1.7	1.9
May 96	0.9	1.0	1.2	1.4	1.6	1.9	2.1
Jun 96	1.0	1.2	1.4	1.5	1.9	2.1	2.4
Jul 96	1.0	1.2	1.4	1.6	1.9	2.1	2.4
Aug 96	0.9	1.1	1.3	1.5	1.7	1.9	2.2
Sep 96	0.8	1.0	1.1	1.3	1.5	1.8	2.0
Oct 96	0.8	1.0	1.2	1.4	1.6	1.8	2.0
Nov 96	0.8	1.0	1.2	1.4	1.6	1.8	2.0
IR3							
Jun 95	0.6	0.8	0.9	1.0	1.2	1.4	1.6
Jul 95	0.6	0.8	0.9	1.0	1.2	1.4	1.6
Aug 95	0.6	0.7	0.8	1.0	1.1	1.3	1.4
Sep 95	0.5	0.6	0.7	0.8	0.9	1.1	1.2
Oct 95	0.5	0.5	0.6	0.7	0.9	1.0	1.1
Nov 95	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Dec 95	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Jan 96	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Feb 96	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Mar 96	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Apr 96	0.5	0.5	0.6	0.7	0.9	1.0	1.1
May 96	0.5	0.6	0.7	0.9	1.0	1.1	1.3
Jun 96	0.6	0.8	0.9	1.0	1.2	1.4	1.6
Jul 96	0.6	0.7	0.9	1.0	1.2	1.4	1.6
Aug 96	0.6	0.7	0.8	0.9	1.0	1.2	1.4
Sep 96	0.5	0.6	0.7	0.8	0.9	1.0	1.2
Oct 96	0.5	0.6	0.7	0.8	1.0	1.1	1.3
Nov 96	0.5	0.6	0.7	0.8	1.0	1.1	1.3