

**MODIS SNOW DATA PRODUCTS COLLECTION 4 AND COLLECTION 3 VALIDATION AND
PRODUCT QUALITY STATUS
28 January, 2003**

All the MODIS Collection 3 and Collection 4 snow products are considered to be Validated, Stage 2. Collection 4 is given the same validation status as Collection 3 because only minor revisions that affect scientific quality of the products were made in the algorithms for Collection 4. Analysis of the four science test runs made for Collection 4 processing revealed that the approved versions of the algorithms gave results consistent with Collection 3 performance so were given the same validation status (Table 1). A caveat to validation of Collection 4 is, the period from first day of data acquisition (24 February 2000) to the start of Collection 3 (Table 2) is first time public release of the snow data products and although the MODIS Level 1B data is declared validated, it may have characteristics during that time period that affect the quality of the snow data products. Analysis of the snow data products is an ongoing activity. Specific information on the science quality of the snow data products is reported in the "ScienceQualityFlagExplanation". The URL for the quality assessment site is given in the product metadata and is linked to from the EDG when ordering data. The "ScienceQualityFlagExplanation" is changed in response to analysis results and should be checked for updated information.

Data dates of Collection 3 and Collection 4 and validation status are presented in Table 1. The forward and reprocessing data production streams of Collection 4 are shown separately to show the time periods in each. Collection 4 begins on 24 Feb 2000 and continues to the present. Collection 3 begins on different dates for the snow data products. In each product, the differences between those start dates are periods for which the data will be publicly available for the first time (Table 2).

Table 1. MODIS validation status for Collection 3 and Collection 4.

Earth Science Data Type (ESDT)	Collection	Begin Date (Julian Day)	End Date (Julian Day)	Validation Status
MOD10_L2	Collection 3	2000 Aug 13 (257)	2002 Dec 31 (365)	Validated Stage 2
	Collection 4	2000 Feb 24 (055) (reprocessing)	ρ 2002 Dec 31 (365)	Validated Stage 2
		2003 Jan 1 (001) (forward processing)	$\rho\rho$	Validated Stage 2
MOD10A1	Collection 3	2000 Aug 13 (257)	2002 Dec 31 (365)	Validated Stage 2
	Collection 4	2000 Feb 24 (055) (reprocessing)	ρ 2002 Dec 31 (365)	Validated Stage 2
		2003 Jan 1 (001) (forward processing)	ρ	Validated Stage 2
MOD10C1	Collection 3	2002 Feb 14 (045)	2002 Dec 31 (365)	Validated Stage 2
	Collection 4	2000 Feb 24 (055) (reprocessing)	ρ 2002 Dec 31 (365)	Validated Stage 2
		2003 Jan 1 (001) (forward processing)	$\rho\rho$	Validated Stage 2

MOD10A2	Collection 3	2000 Sep 13 (257)	2002 Dec 31 (365)	Validated Stage 2
	Collection 4	2000 Feb 24 (055) (reprocessing)	ρ2002 Dec 31 (365)	Validated Stage 2
		2003 Jan 1 (001) (forward processing)	ρρ	Validated Stage 2
MOD10C2	Collection 3	2001 Sep 30 (273)	2002 Dec 31 (365)	Validated Stage 2
	Collection 4	2000 Feb 24 (055) (reprocessing)	ρ2002 Dec 31 (365)	Validated Stage 2
		2003 Jan 1 (001) (forward processing)	ρρ	Validated Stage 2

ρ In progress with an estimated completion in September 2003.

ρρ In progress with an end date TBD.

Table 2. First time periods of public release of data products in Collection 4 as compared to Collection 3.

ESDT	Collection 3 Start Date – End Date	Collection 4 Start Date		Collection 4 First Public Release Periods
		Reproce sing	Forward Processin g	
MOD10_L2	2000 257 – 2002 365 2000 Sep 13 – 2002 Dec 31	2000 055 2000 Feb 24	2003 001 2003 Jan 1	2000 055 – 257 2000 Feb 24 – Sep 13 (202 days)
MOD10A1	2000 257 – 2002 365 2000 Sep 13 – 2002 Dec 31	2000 055 2000 Feb 24	2003 001 2003 Jan 1	2000 055 – 257 2000 Feb 24 – Sep 13 (202 days)
MOD10C1	2002 045 – 2002 365 2002 Feb 14 – Dec 31	2000 055 2000 Feb 24	2003 001 2003 Jan 1	2000 055 – 2002 045 2000 Feb 24 – 2002 Feb 14 (721 days)
MOD10A2	2000 257 – 2002 365 2000 Sep 13 – 2002 Dec 31	2000 055 2000 Feb 24	2003 001 2003 Jan 1	2000 055 – 257 2000 Feb 24 – Sep 13 (202 days)
MOD10C2	2001 273 – 2002 365 2001 Sep 30 – 2002 Dec 31	2000 055 2000 Feb 24	2003 001 2003 Jan 1	2000 055 – 2001 273 2000 Feb 24 – 2001 Sep 30 (384 days)