AIA
Data products: above level 1.5

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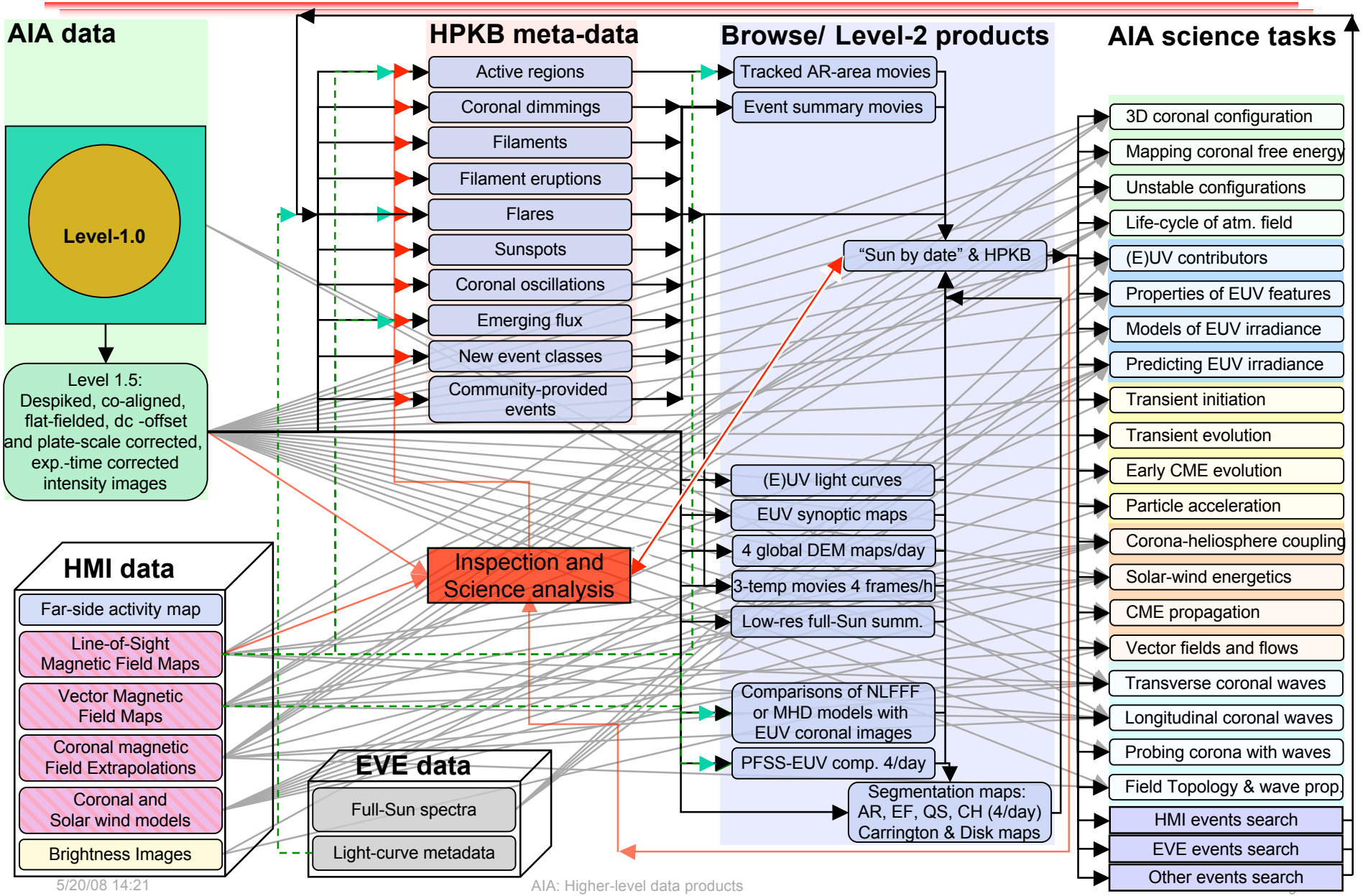
Provisional summary - V1.1

AIA Processing Pipeline and Standard Products



AIA meta-data, and supporting meta-data

	Required AIA data	Supplemental data	Other meta-data	Detection method	Meta-data output	Visual output	Input for level-2 data product
Active regions	AIA (E)UV images 1 set/hour	Magnetograms 1/hour	NOAA AR info	Obs. inspection	AR box		AR movies; EUV AR light curves; EUV-model field
				Auton.: Threshold, contour., clustering	Contour, brightness, moments	Segmentation maps; 1/h	
Coronal dimmings	AIA EUV images 1h sets at 1/min. 1kx1k	-	HPKB Flare info.	Obs. inspection	Position, duration.		Event summary movies
				Auton.: Running diff., low-res. contour.	Contour chain code	Segmentation map	
Filaments	AIA EUV images 1kx1k daily summaries	-	-	Obs. inspection	Position		Event summary movies
				Auton.: TBD	Skeleton chain code	Segm. map; 1/h	
Filament eruptions	AIA EUV images 1kx1k daily summaries	-	-	Obs. inspection	Position/time info.	-	Event summary movies
				Auton.: TBD	TBD	TBD	
Flares	AIA (E)UV images 1kx1k daily summary movies	-	NOAA/GOES and EVE events	Auton.: Image diff. and thresholding	Position/time info., peak brightness.	Segmentation map; 1/h	Event summary movies
				TBD	TBD	TBD	
Sunspots	UV/WL images; 1/h	-	NOAA sunspot info	--	--	--	-
				Auton.: thresholding and clustering	Position, contour chain code	Segm. map; 1/h	
Coronal oscillations	AIA EUV image sets Details: TBD	-	-	Obs. inspection	Position, time		Event summary movies - link to flare movies
				Aut.: TBD	Peak freq., trans./long.	Segm. map	
Emerging flux (AR sized)	AIA (E)UV sequences, 1kx1k daily summaries	Magnetograms 1/hour	HMI metadata	Obs. inspection	Position/time:		Event summary movies
				Auton.: TBD	Chain code contour	Segm. map	
New event classes	TBD	TBD, incl. thermal movies and DEM maps	TBD	Obs. inspection	Class definition	TBD	TBD
				TBD	TBD	TBD	
Community-provided	-	-	-	TBD	Appropriate meta-data in xml format	Summary image or movie	TBD

Not funded under AIA contract. We will accommodate externally provided events (in standard xml format), or negotiate to support projects external to AIA.

AIA WWW/browse data products

	Required meta-data	Required AIA data	Required supplemental data	Time windows and temporal resolution	Field of view and spatial resolution	Output format(s)	Accessible via HPKB (IVORN)
Tracked Active Region movies	HPKB: AR	(E)UV images, 1k cutout	HMI magnetograms	Up to disk passage; 4/h	1kx1k, full-res.	Movie: format(s) TBD	Y
Event summary movies	HPKB: all event types other than AR	(E)UV images, 1k cutout or 1k binned full fov	HMI magnetograms	Up to 6h; 12/h	1kx1k, full-res. or full-fov	Movie: format(s) TBD	Y
(E)UV lightcurves	HPKB: AR	Total intensity, and AR-region intensity; all ch.	EVE light curves	Past three days; past 24h; 6/min.	N/A	Lightcurve images	N
(E)UV synopic maps	-	AIA (E)UV images; 1/day	-	Monthly summaries; 1/d	Central meridian strips; 1k N-S	Images	N
Global DEM maps	-	AIA (E)UV images; 4/d	HMI magnetograms	4/d	Full-Sun; 1kx1k rebinned	Images	N
Three-channel 'temperature' movies	-	AIA (E)UV images; 1/h	HMI magnetograms	Daily sumaries; 1/h	Full-Sun; 1kx1k rebinned	Movie: format(s) TBD	N
Full-Sun low-resolution movies	-	(E)UV images	HMI magnetograms	1d, 12/h and 7d, 2/h and 28d, 1/h	1kx1k rebinned	Movie: format(s) TBD	N
Comparisons of EUV images and model fields	HPKB: AR	AIA EUV images	HMI magnetogram; PFSS&NLFFF field models	2/d	1kx1k full-res.	Images	Y? for highly non-pot'l fields
PFSS-EUV comparisons	-	AIA EUV images	HMI magnetogram, PFSS model	2/d	1kx1k rebinned full-fov	Images	Y: open-field regions
AIA&Ext.: Seg-mentation maps	HPKB: AR, CH, other events,	-	NOAA AR info, GOES flare info	1/h	1kx1k rebinned full-fov.	Images: Carrington Maps + Disk Masks	N

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Event Capture and AIA Level-2 processing