Current Observing Plans

MICHAEL S. P. KELLEY (UNIV. MARYLAND)

FOR THE

COORDINATED INVESTIGATIONS OF COMETS (CIOC) COMMITTEE

Why collect observing plans?

To enhance the scientific output from this rare opportunity by:

- Facilitating collaborations,
- Identifying missing opportunities, so that we (the community) can fill in the gaps,
- Identifying new opportunities.

The observing plan calendar will continue be useful after the fact.

Provides NASA with a semi-quantifiable metric for campaign success (X observers using Y telescopes over Z days).

Source: cometcampaign.org

Self-reported observing plans from the comet community.

- cometcampaign.org/observation-plans solicits input from professional astronomers.
- For the amateur observation program, see the talk by Yanamandra-Fisher (4:15 PT).

Self-reported = This presentation is incomplete, but it should give a sense of how the community is observing the comet.

cometcampaign.org

We still welcome new observing plan submissions,

- Observations that have already occurred are OK!
- Related observations of Mars also OK!
- Notable omissions: Some Hubble programs, some VLT programs, TRAPPIST, Subaru, Herschel, most Mars spacecraft (see today's talks).
- cometcampaign.org/observation-form
- Easy to use and most details are voluntary.

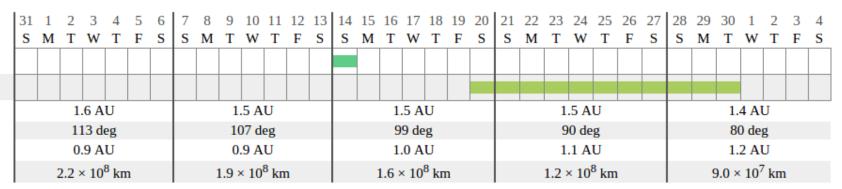
cometcampaign.org/observation-form

CometCampaign.Org Planned/Executed Observations Form
Have plans to observe comet Siding Spring or its effects on Mars? Already have data? Join the Coordinated Investigations of Comets (CIOC) Campaign and submit a form to share your observations with your colleagues.
The form is about three pages long, and requests some basic information about your goals, instrumentation, and timing. Most fields are optional. You may submit multiple forms.
More information and a summary of the campaign is at: cometcampaign.org
Questions or comments should be directed to the CIOC contact form (
* Required
Principal Investigator or Observer * Your name
Contact information * E-mail address (only for us to contact you, and will not be shared publicly)
Other observers Additional team members
Science goals Dust, gas, ions, nucleus, Mars, etc.
Observation status Select multiple boxes, if necessary
☐ Planned or proposed
Awarded or scheduled
Completed
Continue »

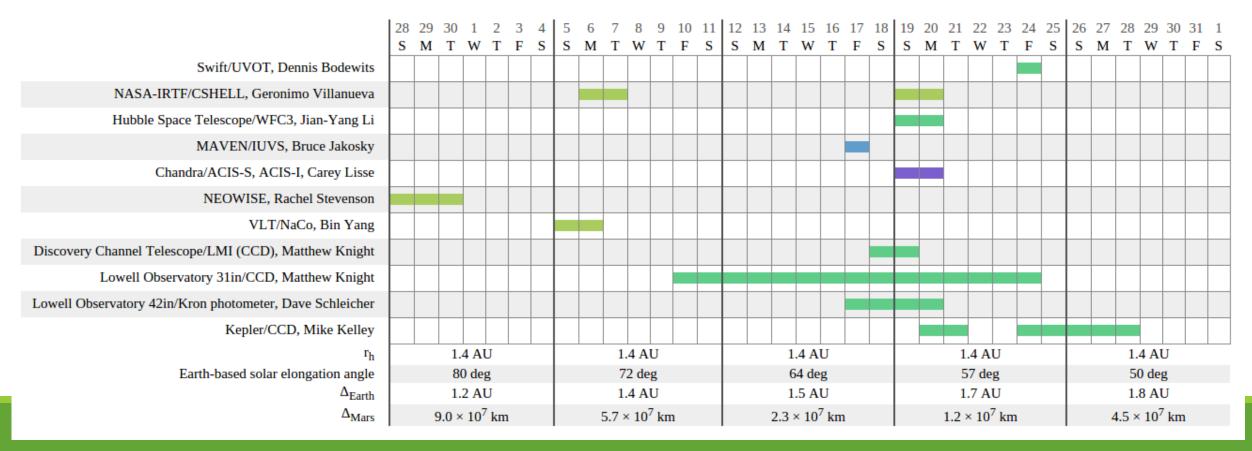
CometCampaign.Org Planned/Executed Observations Form	
* Required	
Telescope / Spacecraft / Instrument Information	
Telescope / Spacecraft * Name of the observing platform	
Location Observatory name, MPC code, longitude and latitude, Earth orbit, solar orbit, etc.	
Instrumentation Specific or generic names of your instruments, e.g., CCD, SpeX, UVES.	
instrument wavelength Select the approximate wavelength regimes for all your instruments.	
□ X-ray	
□ Far UV □ Near UV	
Visual / optical	
Near infrared	
Mid/far infrared	
(Sub) Millimeter	
Radio	
Other:	
Data type Select the approximate data types for all your instruments.	
Photometry	
□ Imaging	
Polarimetry	
☐ Spectroscopy	

September 2014

Swift/UVOT, Dennis Bodewits NEOWISE, Rachel Stevenson $^{\Gamma_h}$ Earth-based solar elongation angle Δ_{Earth} Δ_{Mars}



October 2014



November 2014

NASA-IRTF/CSHELL, Geronimo Villanueva Kepler/CCD, Mike Kelley

Earth-based solar elongation angle Δ_{Earth} Δ_{Mars}

26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
														\vdash																											
		1.	4 A	U					1.	4 A	U					1	.4 A	U					1.	.4 A	U					1.	5 A	U					1	.5 A	U		
		50	0 de	g					4	3 de	g					3	37 de	g					3	1 de	g				26 deg					23 deg							
		1.	8 A	U					2.	0 A	U					2	.1 A	U			2.2 AU					2.3 AU					2.3 AU 2.4 A			U							
	$4.5 \times 10^7 \text{ km}$ $7.8 \times 10^7 \text{ kg}$				⁷ km	1		1.1 × 10 ⁸ km							1.4 × 10 ⁸ km							$1.8 \times 10^{8} \text{ km}$					2.1 × 10 ⁸ km														

February 2015

Swift/UVOT, Dennis Bodewits Γ_h Earth-based solar elongation angle Δ_{Earth} Δ_{Mars}

	2																												
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S		
	2.0 AU						2.1 AU								2.1 AU								2.2 AU						
		5	4 de	g					6	1 de	g			67 deg								74 deg							
	2.4 AU 2.4 AU							2.3 AU								2.3 AU													
4.3 × 10 ⁸ km							4.5 × 10 ⁸ km								$4.7 \times 10^{8} \text{ km}$								$4.8 \times 10^{8} \text{ km}$						

ATologoop e		♦Principal								
♦Telescope or Spacecraft	\$Instrument	Investigator or Observer	Other Observers	¢Loc.	*Dates	♦Data Type	♦Wave.	Observation Status	Science Goals	
Spitzer Space Telescope	IRAC	Michael Kelley	J.Bauer, D.Bodewits, T.Farnham, J Y.Li, N.Samarasinha, R.Stevenson, P.Tricarico	Earth orbit	2014-03-26	Photometry, Imaging	Near infrared	Completed	Dust, gas	
IRTF	SpeX	Michael Kelley	Chick Woodward, Silvia Protopapa	Mauna Kea	2014-01-24	Spectroscopy	Near infrared	Completed	water ice	
Hubble Space Telescope	WFC3	Jian-Yang Li	Nalin Samarasinha, Mike Kelley, Tony Farnham, Casey Lisse, Mike A'Hearn, Alan Delamere, Max Mutchler	Earth orbit	2013-10-29, 2014-01-21, 2014-03-11	Photometry, Imaging	Visual / optical	Completed	Dust, nucleus	
Swift	UVOT	Dennis Bodewits	Tony Farnham, Mike A'Hearn	Earth orbit	2013-11-02, 2013-12-28, 2014-02-16, 2014-03-16, 2014-05-28, 2014-07-09, 2014-08-15, 2014-09-14, 2014-10-24, 2015-02-01	Photometry, Spectroscopy	Near UV, Visual / optical	Planned or proposed, Awarded or scheduled, Completed	dust, gas, evolution	More info and preliminary results on http://www.astro.umd.edu/~dennis/Observations.html
NASA-IRTF	CSHELL	Geronimo Villanueva	Michael Mumma, Michael DiSanti, Boncho Bonev, Robert Novak, Lucas Paganini, Alain Khayat, Alan Tokunaga, Karen Magee-Sauer, Erika Gibb	Mauna Kea [568]	2014-10-06, 2014-10-07, 2014-10-19, 2014-10-20, 2014-11-03, 2014-11-04	Imaging, Spectroscopy	Near infrared	Awarded or scheduled	Gas	
Hubble Space Telescope	WFC3	Jian-Yang	Tony Farnham, Mike Kelley, Nalin Samarasinha, Dennis Bodewits, Mike A'Hearn, Casey Lisse, Alan Delamere, Max Mutchler	Earth orbit	2014-10-19, 2014-10-20	Photometry, Imaging		Awarded or scheduled	Imaging, dust, gas	
MAVEN	IUVS	Bruce Jakosky	Nick Schneider, Ian Stewart, Matteo Crismani, Mike Combi	Mars Orbit	2014-10-17	Imaging, Spectroscopy	Far UV, Near UV	Awarded or scheduled	Gas, Nucleus, D/H	
	ACIS-S, ACIS-I	Carey Lisse	Wolk, Christian, Li, Combi, Mutchler	Earth Orbit	2014-10-19 to 2014-10-20	Photometry, Imaging, Spectroscopy	X-ray, Far UV	Awarded or scheduled	X-rays, Solar Wind, Gas	Detailed observations scheduling still TBD; expect 15 hrs (54 ksec of continuous monitoring).
NEOWISE		Rachel Stevenson	James Bauer	Earth Orbit [C51]	2014-07-25 to 2014-07-31, 2014-09-20 to 2014-09-30	Imaging	Near infrared	Awarded or scheduled		
VLT	NaCo	Bin Yang	Silvia Protopapa, Michael Kelley, Nuno Peixinho	Paranal Observatory	2014-10-05, 2014-10-06	Spectroscopy	Near infrared	Awarded or scheduled	dust, ice, organics	
Discovery Channel Telescope	LMI (CCD)	Matthew Knight	Dave Schleicher	G37	2014-10-18 to 2014-10-19	Imaging		Awarded or scheduled	Coma morphology	1 hr per night
Lowell Observatory 31in	CCD	Matthew Knight	Dave Schleicher	688	2014-10-10 to 2014-10-24	Imaging		Awarded or scheduled	Imaging	1 hr per night
	Kron photometer	Dave Schleicher		688	2014-10-17 to 2014-10-20	Photometry		Awarded or scheduled	Production rates	
			Mike A'Hearn, Tony Farnham, Daniel							