



International Asteroid Warning Network: Recent Updates and MPC Summary

Presentation to
International Asteroid Warning Network
Steering Committee

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11 November 2014



Information and Outline



- Reminder of Existing and planned IAWN functions
- Mini-survey / MPCupdate since last IAWN meeting
- Recent meetings (including a summary or two)
& future meetings
- Documents (!)
- Handoff to Lindley
- Scientific talks from characterization crowd



Functions of International Asteroid Warning Network (IAWN)



- ✓ (a) To discover, monitor, and physically characterize the potentially hazardous NEO population using optical and radar facilities and other assets based in both the northern and southern hemispheres and in space;
- ✓ (b) To provide and maintain an internationally recognized clearing house function for the receipt, acknowledgement and processing of all NEO observations;
- ✓ (c) To act as a global portal, serving as the international focal point for accurate and validated information on the NEO population;
- ✓ (d) To coordinate campaigns for the observation of potentially hazardous objects;
- ❑ (e) To recommend policies regarding criteria and thresholds for notification of an emerging impact threat;
- ❑ (f) To develop a database of potential impact consequences, depending on geography, geology, population distribution and other related factors;
- ❑ (g) To assess hazard analysis results and communicate them to entities that should be identified by Member States as being responsible for the receipt of notification of an impact threat in accordance with established policies;
- ❑ (h) To assist Governments in the analysis of impact consequences and in the planning of mitigation responses.

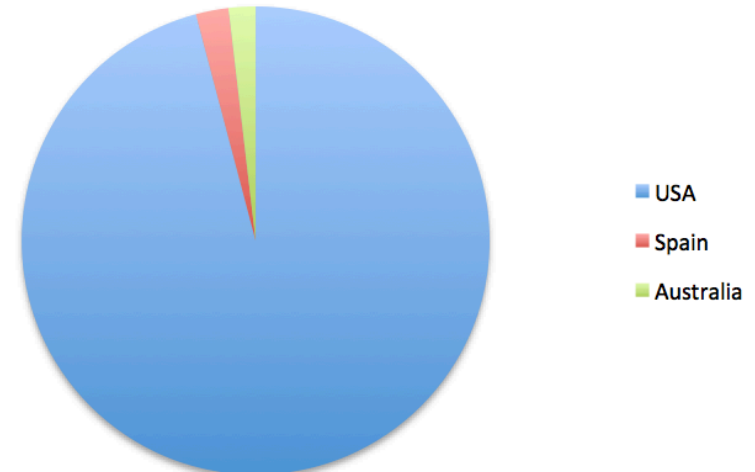
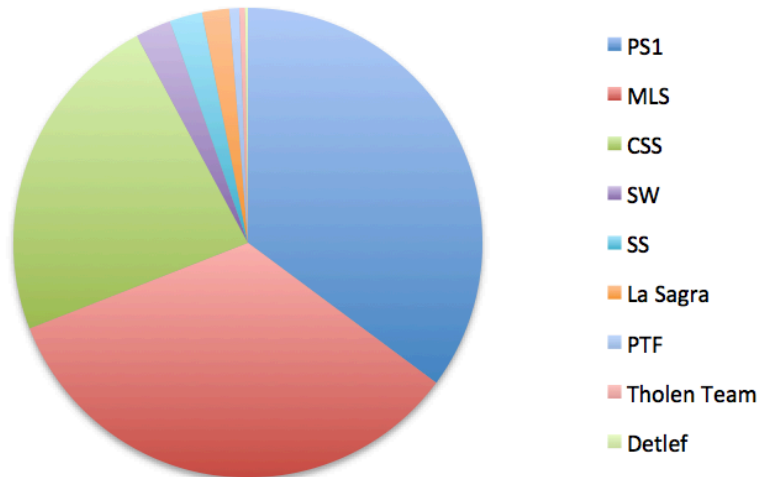


NEO Discovery Breakdown 2013



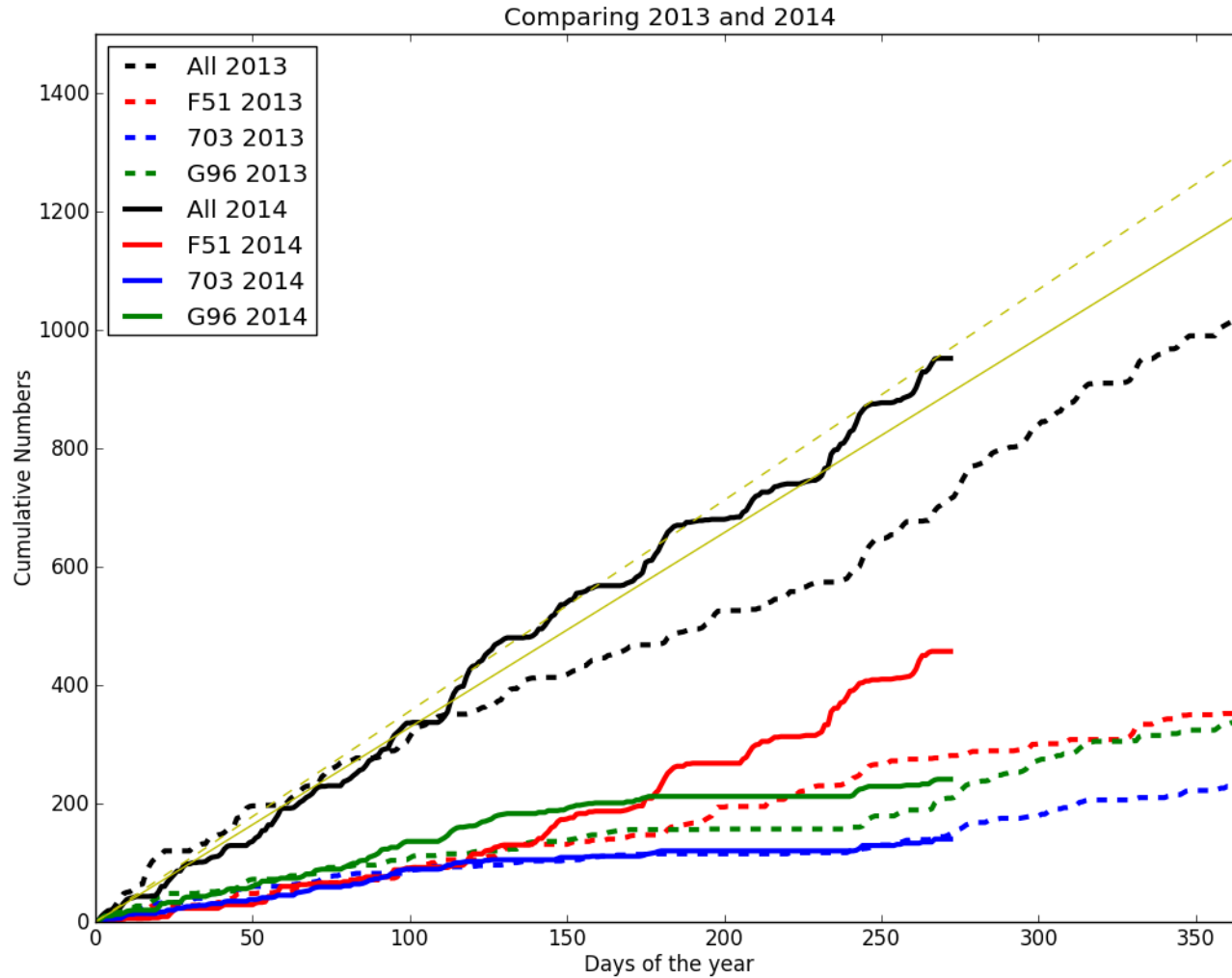
NASA-funded surveys responsible for > 96% of discoveries

< 2% of discoveries from unfunded (aka “amateur”) teams





NEO Discovery Breakdown 2014



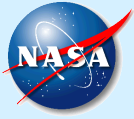


NEO Discovery Breakdown 2014



2014

Code	# PHA	# NEA			#Atens			#Apollos			#Amors		
		All	1km	H<22	All	1km	H<22	All	1km	H<22	All	1km	H<22
F51	41	494/	5/	214	20/	0/	3	195/	2/	87	279/	3/	124
G96	12	318/	1/	73	23/	0/	2	157/	0/	35	138/	1/	36
703	8	189/	1/	47	22/	0/	3	110/	1/	21	57/	0/	23
C51	5	33/	2/	29	1/	0/	1	16/	1/	14	16/	1/	14
691	2	14/	0/	11	0/	0/	0	4/	0/	3	10/	0/	8
J75	2	11/	0/	6	1/	0/	0	6/	0/	4	4/	0/	2
Y00	2	11/	0/	10	0/	0/	0	4/	0/	3	7/	0/	7
C41	1	1/	0/	1	0/	0/	0	1/	0/	1	0/	0/	0
W84	0	36/	0/	9	2/	0/	1	13/	0/	5	21/	0/	3
I41	0	9/	0/	0	0/	0/	0	5/	0/	0	4/	0/	0
950	0	5/	0/	2	1/	0/	0	3/	0/	1	1/	0/	1
J04	0	5/	0/	1	0/	0/	0	4/	0/	1	1/	0/	0
568	0	1/	0/	1	0/	0/	0	0/	0/	0	1/	0/	1
291	0	1/	0/	1	0/	0/	0	1/	0/	1	0/	0/	0
I52	0	1/	0/	1	0/	0/	0	0/	0/	0	1/	0/	1
926	0	1/	0/	1	0/	0/	0	0/	0/	0	1/	0/	1
809	0	1/	0/	0	0/	0/	0	1/	0/	0	0/	0/	0
Total	73	1131/	9/	407	70/	0/	10	520/	4/	176	541/	5/	221



(IAWN) “Needs List”



Dedicated groundbased telescopes capable of surveying to $V \sim 24$

Dedicated groundbased telescopes for astrometric and physical observation follow-up to $V \sim 24$

Spacebased discovery system

Survey cooperation and collaboration (progress!)

International communication and public relations with respect to potential impacts and their consequences (progress here!)



Meetings in past year

IAWN Steering Committee @MPC January

SMPAG meeting in Vienna June 2014

Communication workshop September 2014



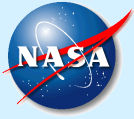
Future Meetings?

UN COPUOS STSC meeting February 2015

SMPAG meetings?

IAWN around the Planetary Defense Conference?

Steering committee could discuss necessity and goals for meeting series?



Discussion of Document(s)

Expect to spend a good deal of time discussing Letter of Intent for the IAWN (suspect we'll show the document on screen here for everyone)

Also discuss summary for presentation to UNCOPUS STSC meeting