NEO Mission Planning and Operations Group

Workshop

ESOC Darmstadt 27 – 29 October 2010

"Protection of the Earth from undesirable impacting bodies is not just a science fiction project for some improbable future. The cost might be comparable to, even smaller than, the world's current military expenditures. We could choose to do it now. We could choose to protect ourselves from asteroids and comets rather than from each other."

Fred L. Whipple
"The Mystery of Comets"
1985

Recommendation 9: Mitigation possibilities

We recommend that the Government, with other governments, set in hand studies to look into the practical possibilities of mitigating the results of impact and deflecting incoming objects.

Report of the UK Task Force on Near-Earth Objects

September 2000

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It is not <u>if</u>

but <u>when</u>

there will be an impact
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- How do you Authorise and be seen to provide oversight
- Open and transparent mission plans
 - and proven mission operations
- A proven and tested information system capable of understandable warnings

- US ad-hoc Task Force on Planetary Defence
 - Report soon
- US OSTP defines responsibilities within the US government for NEO issues
 - Science advisor letter to Hds of Space Committee
 - NASA lead
 - DoD, DHS, FEMA, DOS and generally USG

UN

Security Council

MAOG

IWAN

MPOG

Overview of Policy Reports - 1

•	IAU WG NEO	1991
•	NASA report The Spaceguard Survey	1992
•	Council of Europe Res. 1080	1996
•	USAF/NASA Air force 2025	1996
	 Planetary Defence: Catastrophic Health Ins for P Eart 	:h
•	U III Vienna Declaration	1999
•	UK Task Force Report	2000
•	IAAA Space Coop NEO Detect and Respond	2001

Overview of Policy Reports - 2

•	ESSC of ESF to ESA C Min	2001
•	OECD GSF at ESA ESRIN	2003
•	Sc. In Natural Hazard Assessment UK	2005
•	Astronomical Odds – Rand, G Sommer	2005
•	ASE Call for Global Response	2008
•	IAA report Threat to Earth - NEO	2009

Various US, National Space policy OST etc

Policy

- A plan or course of action, as for a government or business (guiding principles or procedure considered expedient, prudent or advantageous)
- A definite course of action adopted for the sake of expediency, facility etc
- Intended to influence and determine decisions and other matters
- Art of Governance

- MPOG
 - What mandate
 - Is needed
 - Is required
 - What inputs
 - Technical
 - Policy
 - Day to day and from time to time
 - What outputs
 - and to who?

- Warnings
 - How to deal with changing status
 - Scales and agreeing to the status
 - Not a technical issue? (but needs tech input)
 - Know your audience
 - Must know the outcome of issued warning
 - Understand public beliefs and values
 - Know who to call

Policy Issues

- What next
 - What are the priorities
 - What has been left out
 - Links
 - Appropriate mandate
- How adaptive will policy need to be
- National and regional as well as Global involvement required.

- Changing perceptions
 - Understanding the reality
 - Special type of risk
 - Something can be done
- Impact prevention
 - A benefit only if loss of life or property?
 - Cost and benefit
 - Other effects/benefits (biodiversity)

Conclusions

For Friday

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Thank you for listening