

*End User Task Group
Status Report and
Plans for 2008*

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On behalf of the End Users TG

The Group

- ILWS “End users” refers to domains affected by space weather
 - Including but not limited to: spacecraft operations, communications, navigation, manned spaceflight, power transmission...
- SC recognises that although ILWS is targeted at the science of “governing processes”, end users views are important
- This talk will:
 - Review the charter, composition and workplan
 - Present report on preliminary discussions and data collection activities
 - Propose (slight) modifications to workplan
 - Report on NOAA/SWPC draft white paper
 - Report on plans for 2008

Some Recent Developments in Space Weather Applications

- WMO
 - Exec Council will discuss a resolution this month to assess possible support of ISES,
 - brings RWCs into a meteorological framework
- NOAA/SWPC reorganisation and refocusing
 - to concentrate on transition of research to operational services and products
 - part of the US weather service
- ESA is investigating a possible new optional programme on Space Situational Awareness
 - would include an element of operational space weather
 - decision expected at ESA Council at Ministerial Level, Nov. 2008

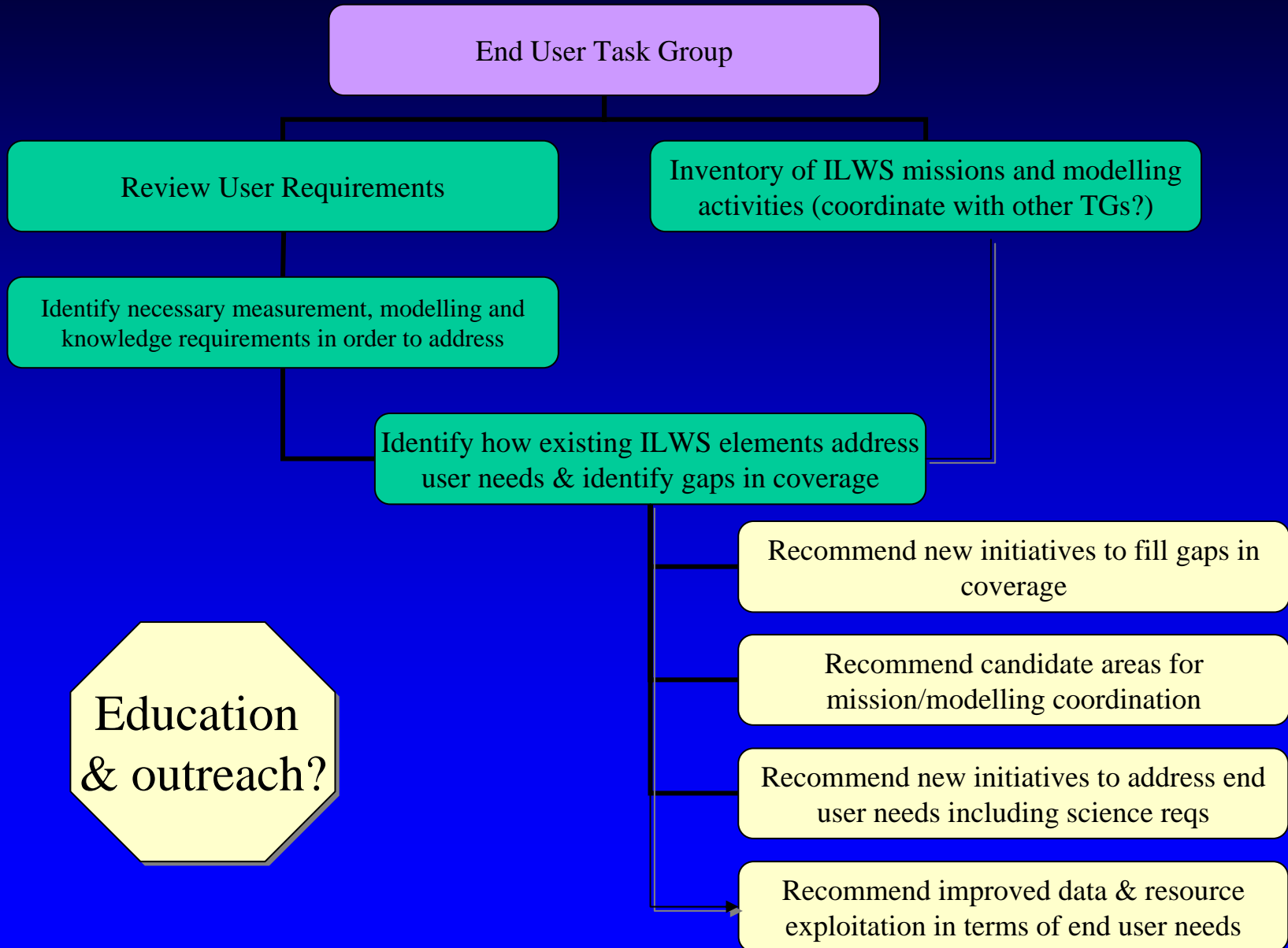
End Users TG Membership

- Current Members =
 - Eamonn Daly (ESA, chair); Alexi Glover (ESA); David Boteler (ISES); Terry Onsager (NOAA/SWPC); Maki Akioka (Japan); Mike Hapgood (ESA SWWT)
- Proposed new members =
 - Neil Zapp (NASA/SRAG), Michael Hesse (CCMC)

Charter: some updates

1. Review current understanding of end-user needs
2. Identify measurement, modeling and knowledge requirements supporting these needs
3. Evaluate how current and future ILWS missions and associated modeling activities support end user needs
4. From 1, 2 & 3 determine user needs that are not addressed by the present set of existing or planned missions and associated modeling activities
5. Make recommendations for ILWS members to address:
 - key areas to be targeted by ILWS members in order to fill gaps identified in (4).
 - Candidate areas for mission and/or modelling initiative coordination
 - New initiatives perhaps not yet considered by ILWS member and partner agencies
 - Improved data exploitation and modeling serving end-users (ref point 3), in the context of ILWS.
6. Coordination with other groups a requirement e.g. ISES, COSPAR PSW

Workplan: Key Tasks



End User Requirements: Initial Survey

Resources consulted & to be consulted

- **ESA Space Weather Applications Initiative:**
 - Feasibility Study of a European Space Weather Programme (1999-2001) user requirements assessment
 - Pilot Project Service Development Activities user requirements
 - ESA Nanosatellite beacons for space weather monitoring synthesis of measurement requirements built on user requirements
- **ISES Regional Warning Centres: service provision in response to user requirements**
 - Including NOAA/SWPC User Requirements and Service Priorities
- **NSWP assessment (2006)**
- **Other...?**

Example User Requirements

A	B	C	D	E	F	G
End user	User service requirement	timelines	accuracy	Rationale	Primary (data/modelling?) Need	Derived data needs
communications	long-term model for HF propagation prediction	6hourly forecast standard, plus flexible forecasts for particular regions	provision of multi-region forecast	coverage of operational areas as required, search and select operations. Global forecast and deployment can be requested for notice. Tailored regional forecasts useful	ionospheric state (global ionospheric profiling (f0F2 & hmf2), scintillation, absorption);	Prediction based on solar observation (active region monitoring and flaring prediction, coronagraph CME monitoring, whole sun EUV (1 hr warning)), and solar wind obs. (storm prediction)
	short term prediction of F-region parameters			many user organisations work at national level so regionalised forecasts useful		
	% probability of SWF events	(not yet implemented)				

Preliminary

SWPC White Paper (in preparation)

- The mission of ILWS is to “Stimulate, strengthen, and coordinate space research to understand the governing processes of the connected Sun-Earth System as an integrated entity.”
- As a task within this mission, propose that effort be initiated to **cultivate heliophysics research activities focused on coordinated worldwide needs for space weather information.**
- Determine the international needs for space weather information.
- Identify the current and planned data sources.
- Determine the ability of current models to provide the needed space weather information (not necessarily in real time).
- Work toward the development of coordinated international space weather modeling capabilities.

Workplan 2008

- First task to complete group membership
- Complete review of user needs and service priorities
- Compare with complete ILWS mission list and (ideally) list of measurements being made/to be made
- Solicit inputs & feedback from ILWS modelling community
- Formulate preliminary recommendations

- Propose to increase visibility of group via website for information exchange:
 - <http://esa-spaceweather.net/ilws-endusers>
- Progress will be presented and inputs solicited during next ISES meeting, COSPAR PSW business meeting this summer (both Jul/08) & next SWWT meeting (Nov '08).
- Expected that a TG report will be produced late 2008 with ~completed tables and preliminary recommendations