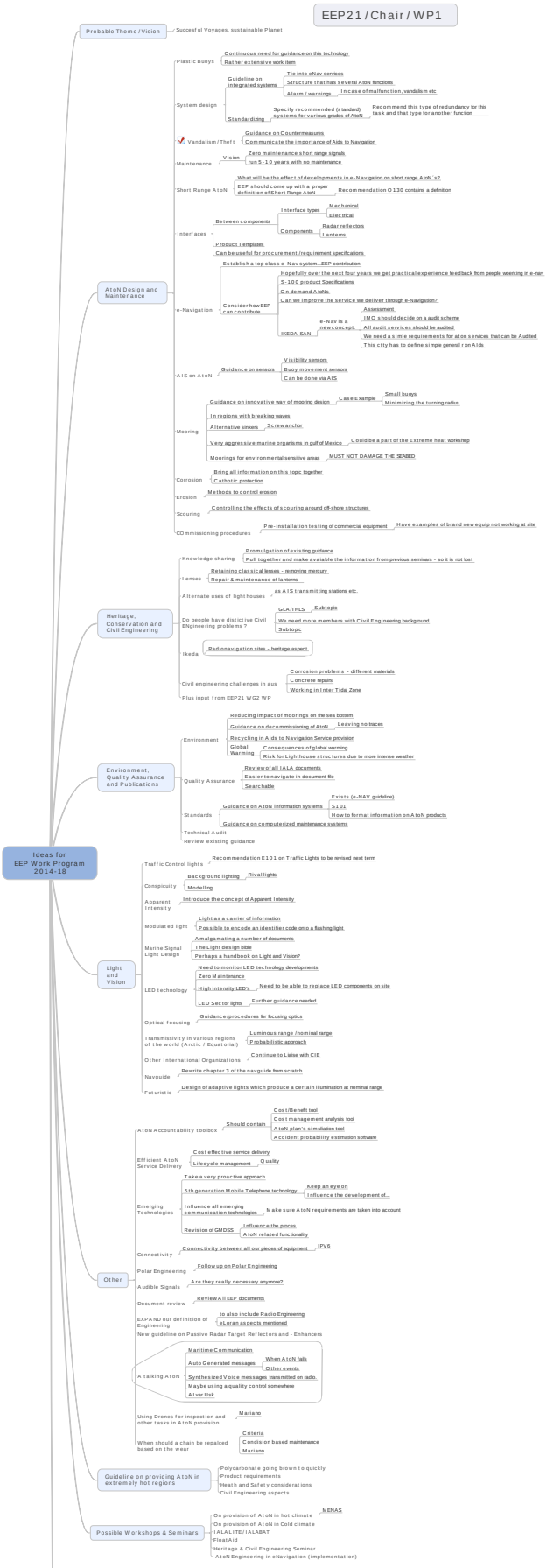
EEP21-14.2.14


EEP21/Chair/WP1
Ideas for EEP Work Program 2014-18
Probable Theme/Vision
Succesful Voyages, sustainable Planet
AtoN Design and Maintenance
Plastic Buoys
Continuous need for guidance on this technology
Rather extensive work item
System design
Guideline on integrated systems
Tie into eNav services
Structure that has several AtoN functions
Alarm / warnings
In case of malfunction, vandalism etc
Standardiding
Specify recommended (standard) systems for various grades of AtoN
Recommend this type of redundancy for this task and that type for another function
Vandalism/Theft
Guidance on Countermeasures
Communicate the importance of Aids to Navigation
Maintenance
Vision
Zero maintenance short range signals
run 5-10 years with no maintenance
Short Range AtoN
What will be the effect of developments in e-Navigation on short range AtoN's?
EEP should come up with a proper definition of Short Range AtoN
Recommendation Q130 contains a definition
Interfaces
Between components
Interface types
Mechanical
Electrical
Components
Radar reflectors
Lanterns
Product Templates
Can be useful for procurement /requirement specifications
e-Navigation
Establish a top class e-Nav system...EEP contribution
Consider how EEP can contribute
Hopefully over the next four years we get practical experience feedback from people working in e-nav
S-100 product Specifications
On demand AtoNs
Can we improve the service we deliver through e-Navigation?
e-Nav is a new concept.
IKEDA-SAN
Assessment
IMO should decide on a audit scheme
All audit services should be audited
We need a simle requirements for aton services that can be Audited
This city has to define simple general r on Aids
AIS on AtoN
Guidance on sensors
Visibility sensors
Buoy movement sensors
Can be done via AIS
Mooring
Guidance on innovative way of mooring design
Case Example
Small buoys
Minimizing the turning radius
In regions with breaking waves
Alternative sinkers
Screw anchor
Very aggressive marine organisms in gulf of Mexico
Could be a part of the Extreme heat workshop
Moorings for environmental sensitive areas
MUST NOT DAMAGE THE SEABED
Corrosion
Bring all information on this topic together
Cathotic protection
Erosion
Methods to control erosion
Scouring
Controlling the effects of scouring around off-shore structures
COmmissioning procedures
Pre-installation testing of commercial equipment
Have examples of brand new equip not working at site
Heritage, Conservation and Civil Engineering
Knowledge sharing
Promulgation of existing guidance
Pull together and make available the information from previous seminars - so it is not lost
Lenses
Retaining classical lenses - removing mercury
Repair & maintenance of lanterns -
Alternate uses of lighthouses
as AIS transmitting stations etc.
Do people have distictive Civil ENgineering problems ?
GLA/THLS
Subtopic
We need more members with Civil Engineering background
Subtopic
Ikeda
Radionavigation sites - heritage aspect
Civil engineering challenges in aus
Corrosion problems - different materials
Concrete repairs
Working in Inter Tidal Zone
Plus input from EEP21 WG2 WP
Environment, Quality Assurance and Publications
Environment
Reducing impact of moorings on the sea bottom
Guidance on decommissioning of AtoN
Leaving no traces
Recycling in Aids to Navigation Service provision
Global Warming
Consequences of global warming
Risk for Lighthouse structures due to more intense weather
Quality Assurance
Review of all IALA documents
Easier to navigate in document file
Searchable
Standards
Guidance on AtoN information systems
Exists (e-NAV guideline)
S101
How to format information on AtoN products
Guidance on computerized maintenance systems
Technical Audit
Review existing guidance
Light and Vision
Traffic Control lights
Recommendation E101 on Traffic Lights to be revised next term
Conspicuity
Background lighting
Rival lights
Modelling
Apparent Intensity
Introduce the concept of Apparent Intensity
Modulated light
Light as a carrier of information
Possible to encode an identifier code onto a flashing light
Marine Signal Light Design
Amalgamating a number of documents
The Light design bible
Perhaps a handbook on Light and Vision?
LED technology
Need to monitor LED technology developments
Zero Maintenance
High intensity LED's
Need to be able to replace LED components on site
LED Sector lights
Further guidance needed
Optical focusing
Guidance/procedures for focusing optics
Transmissivity in various regions of the world (Arctic / Equatorial)
Luminous range /nominal range
Probabilistic approach
Other International Organizations
Continue to Liaise with CIE
Navguide
Rewrite chapter 3 of the navguide from scratch
Futuristic
Design of adaptive lights which produce a certain illumination at nominal range
Other
AtoN Accountability toolbox
Should contain
Cost/Benefit tool
Cost management analysis tool
AtoN plan's simulation tool
Accident probability estimation software
Efficient AtoN Service Delivery
Cost effective service delivery
Lifecycle management
Quality
Emerging Technologies
Take a very proactive approach
5th generation Mobile Telephone technology
Keep an eye on
Influence the development of...
Influence all emerging communication technologies
Make sure AtoN requirements are taken into account
Revision of GMDSS
Influence the proces
AtoN related functionality
Connectivity
Connectivity between all our pieces of equipment
IPV6
Polar Engineering
Follow up on Polar Engineering
Audible Signals
Are they really necessary anymore?
Document review
Review All EEP documents
EXPAND our definition of Engineering
to also include Radio Engineering
eLoran aspects mentioned
New guideline on Passive Radar Target Reflectors and - Enhancers
A talking AtoN
Maritime Communication
Auto Generated messages
When AtoN fails
Other events
Synthesized Voice messages transmitted on radio.
Maybe using a quality control somewhere
A1ver Usk
Using Drones for inspection and other tasks in AtoN provision
Mariano
When should a chain be repalced based on the wear
Criteria
Condision based maintenance
Mariano
Guideline on providing AtoN in extremely hot regions
Polycarbonate going brown to quickly
Product requirements
Heath and Safety considerations
Civil Engineering aspects
Possible Workshops & Seminars
On provision of AtoN in hot climate
MENAS
On provision of AtoN in Cold climate
IALA LITE/IALABAT
Float Aid
Heritage & Civil Engineering Seminar
AtoN Engineering in eNavigation (implementation)
4 year Goals
Aton Design and Maintenance
Heritage Conservation and Civil Engineering
Environment Quality Assurance and Publications
Light and Vision
Provide up to date relevant up to date standards, recommendations and guidance on the design and use of visual Aids to Navigation
Correct format
Accessibility of information
Continue to be a Centre of excellence for Maritime Visual Signalling
Gather world class experts
Rename working group to Visual Signaling
Scope has expanded during last 4 years
Daymark
Malcholms concerns
Standards
Cost burden on those countries who must comply
We have lost 3 visual experts
Authorities are not replacing them
WWA and Capacity Building
EEP Goal