

Sustained Data Management and I-COADS

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HRMM/COAPS

Workshop

3-5 March 2003



International COADS

- Comprehensive Ocean-Atmosphere Data Set
 - NOAA-NCAR project since 1981
- Historical marine observations
- 2°/1° monthly summary statistics
- Boulder Marine workshop (2002) agreed:

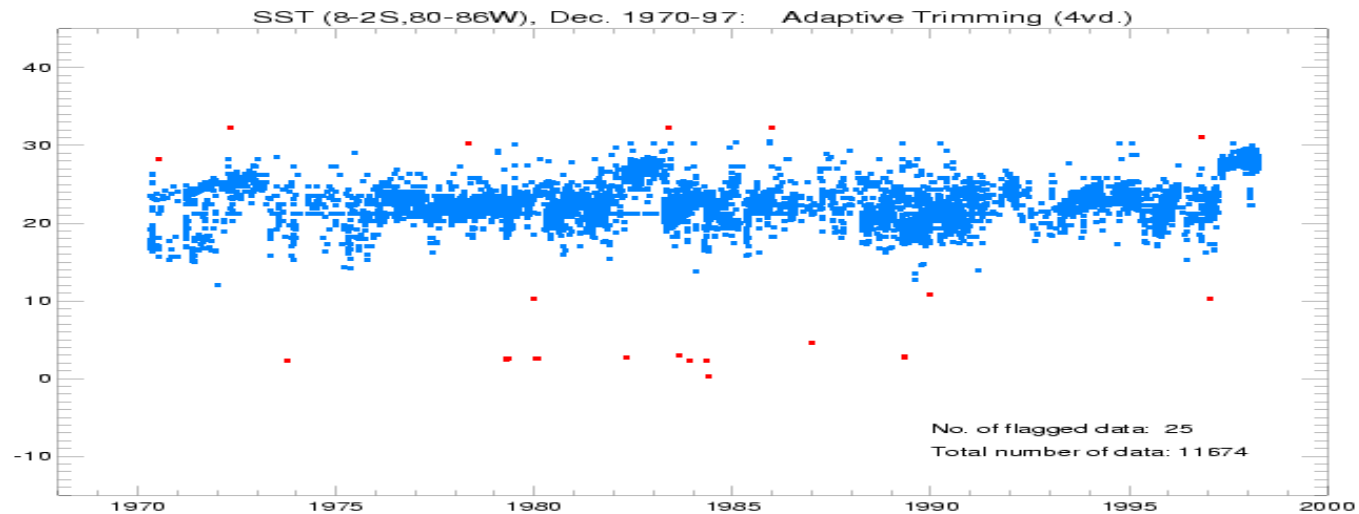
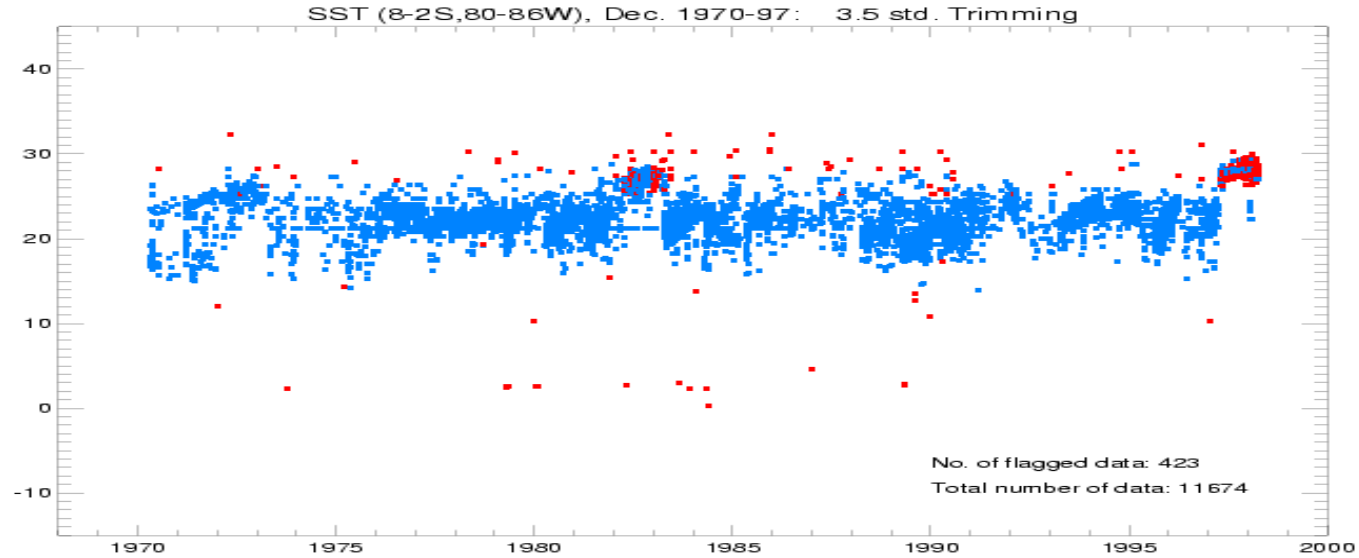
International

in recognition of multinational contributions

I-COADS updates

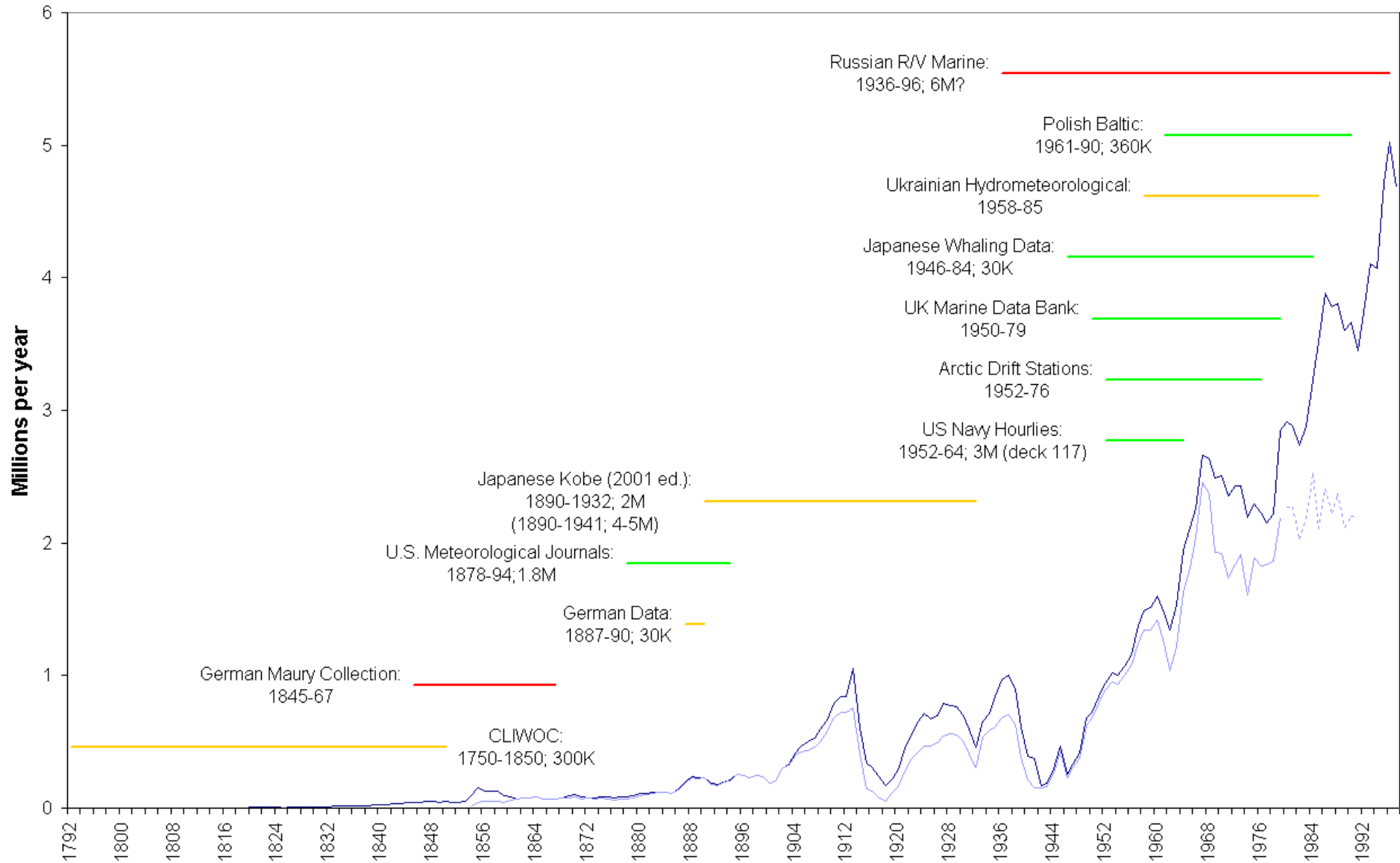
- Delayed-mode (DM) archive:
 - Currently at Release 2.0 (1784-1997)
- Real-time (RT) archive (new IMMMA format):
 - 1997-2002 update: by end 2003 (NCEP GTS)
 - monthly updates: in the future (NCEP/NCDC)
- “Add-on” datasets
 - until full merger can be completed
 - but in I-COADS formats (uniform access)
- Efforts continue toward new Adaptive QC

Trimming (top) versus Adaptive QC (bottom) (Tom Smith and Xiao-Wei Quan)

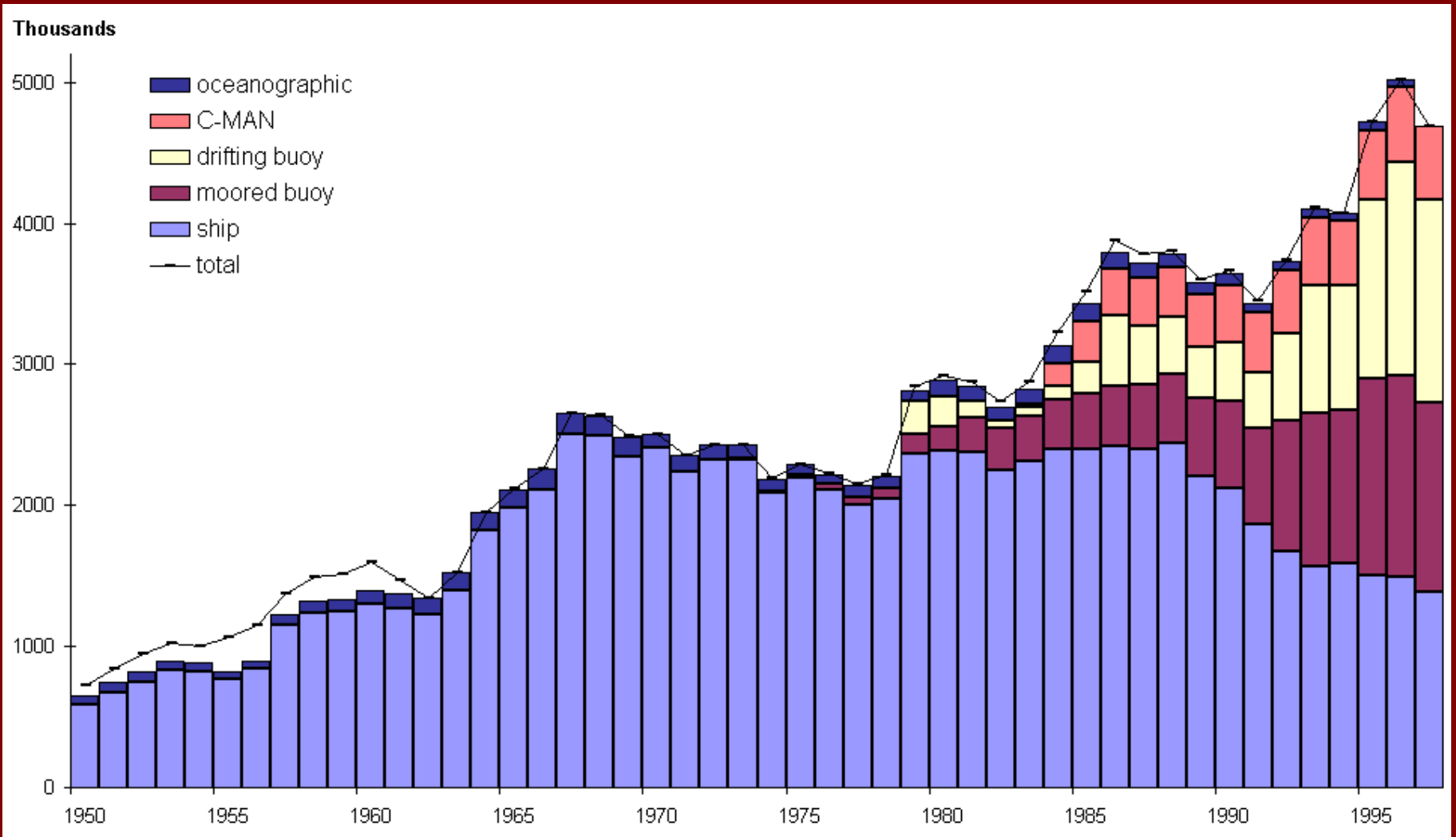


Release 2.0 (dark blue) vs. Release 1 (light blue) reports/year

Future blend candidates: red (undigitized), yellow (partly), green (fully)



Mixture of ship/other data: 1950-97



R/V → I-COADS

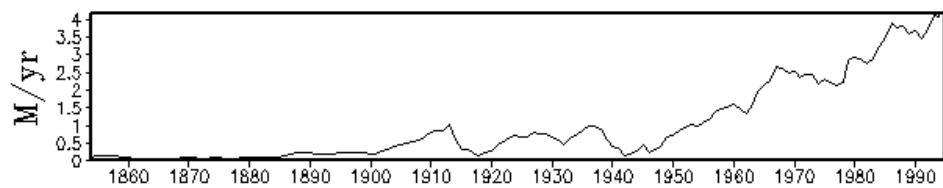
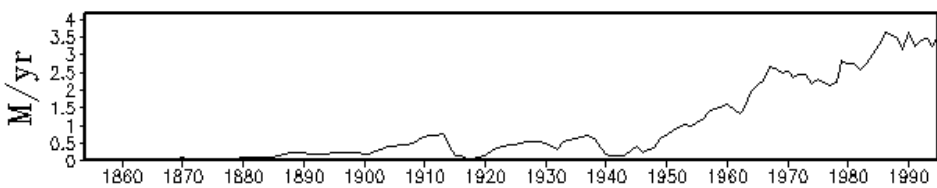
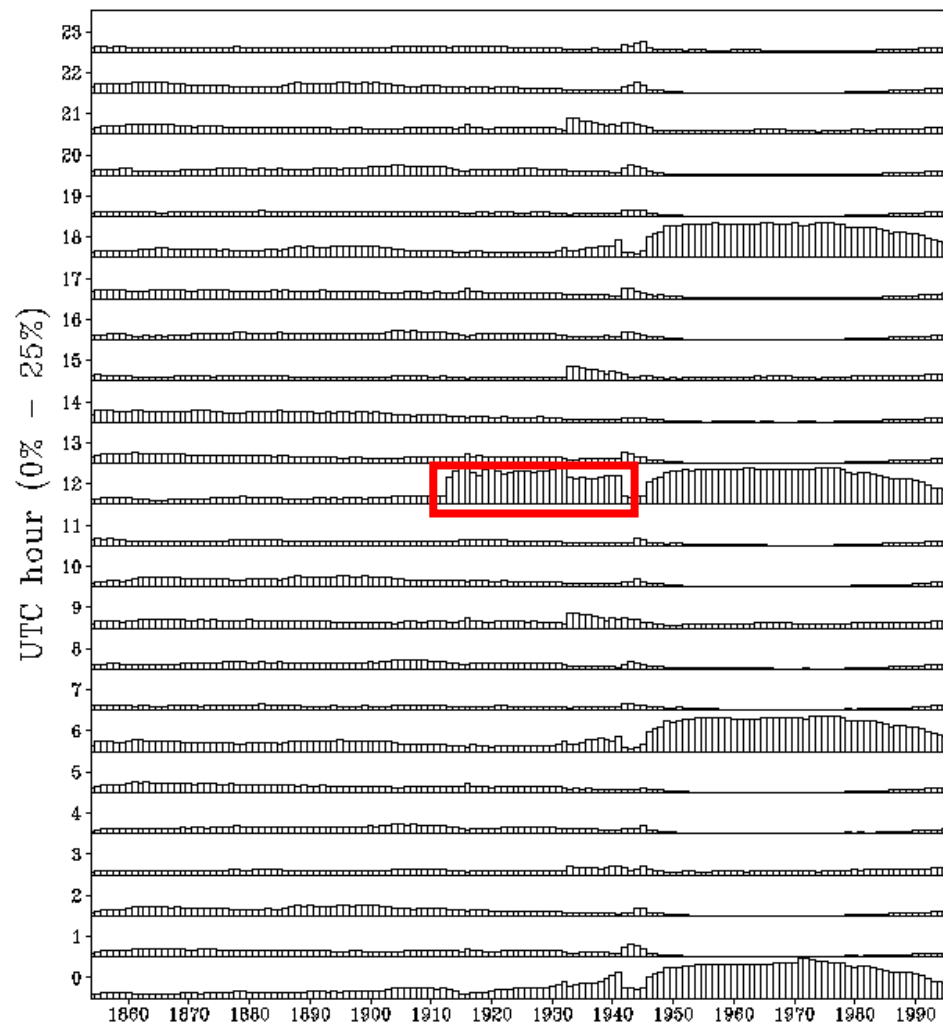
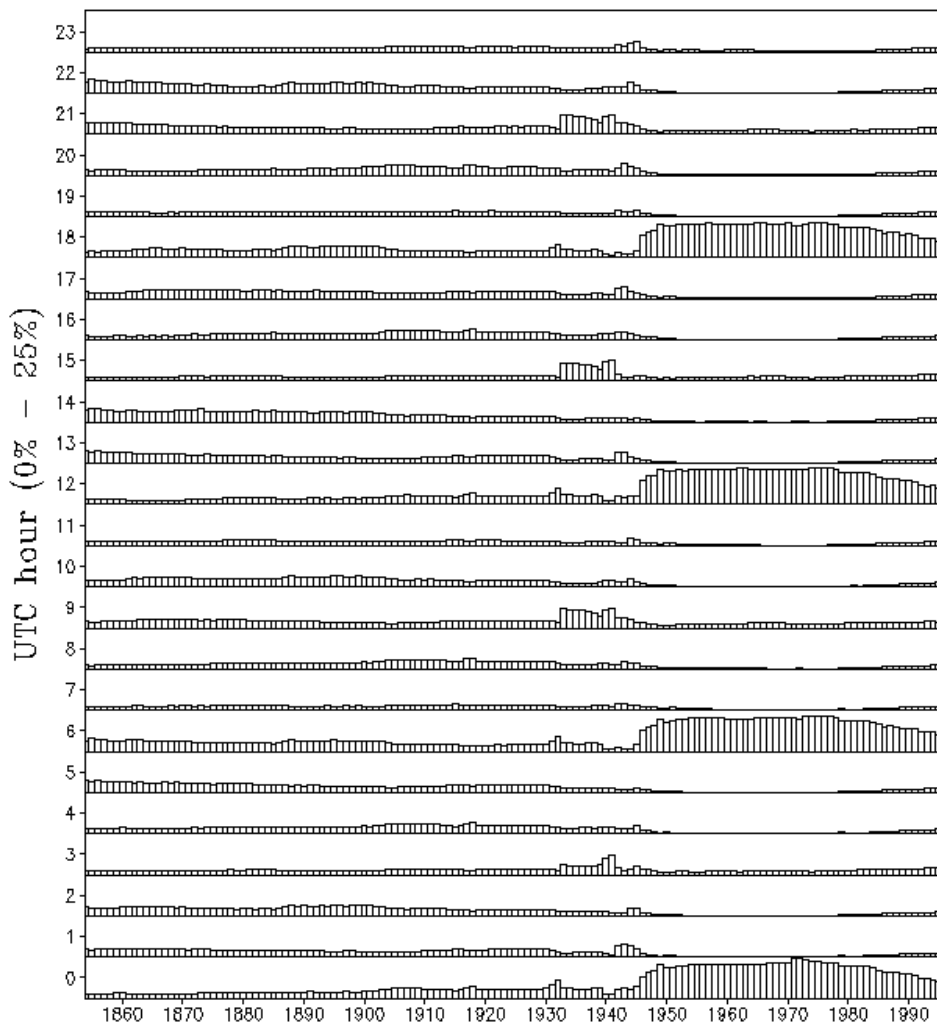
- Valuable addition: coverage, data quality
- ESDIM proposal
 - I-COADS and COAPS
- Extract obs from RVSMDC
- Sample to maintain diurnal variability
- Utilize QC
- Output: IMMMA (archive) format
- Initially: “add on” dataset

R/V → I-COADS: Issues to be resolved

- Quality control
 - Include data + flags?
 - Exclude some flagged data?
- Retain metadata
 - Observation heights, instrument types, etc.
- Compatibility
 - VOS → Note: Synoptic dups from R/V's?
 - Buoy data (e.g., hourly)

UTC Hour Comparison

Release 1 (left) vs. 2.0 (right)



International Maritime Meteorological Archive (IMMA) format

- Under development: JCOMM/WMO
- VOSCLim (modern) record type (315+ char)
 - close to production
- Structure: Core + attms
 - attms: vary per record type
- Core (108 char):
yr,mo,dy,hr,lat,lon,...,temps, SLP, wind,
etc. (all most commonly used elements)

IMMA record types: VOSCLim (modern) and **historical**

core +	atm1 + I-COADS	atm2 + modern ship and buoy	atm3 + model QC	atm99 original data
core +	atm1 + I-COADS	atm5 + historical	atm99 original data	

IMMA structure for R/V data?

- Enhanced VOSClm record type
 - Core
 - Applicable VOSClm attms
- Plus possible new R/V attms (as needed)
 - Metadata
 - QC
- atm99 (original data)
- Future blend with full archive + statistics

CLIMAR-II

Second JCOMM Workshop on Advances in Marine Climatology

Brussels, Belgium, 17-22 November 2003



Objectives:

- To celebrate the 150th anniversary: Brussels Maritime Conference of 1853.
- To receive appropriate input for the dynamic part of the WMO *Guide to the Applications of Marine Climatology*, emphasizing new technologies.
- To provide guidance/technical support for National Meteorological Services.
- To make further contributions to the data and metadata of I-COADS.

CLIMAR-II: 150th anniversary celebration



- Review of 1853 conference
- Historical developments before and after
- Future vision of operational oceanography and marine meteorology

CLIMAR-II: scientific workshop

Session I: Marine Temperatures (AT and SST, sea-ice associated with SST)

- QC, homogeneity, metadata, uncertainty, analysis

Session II: Pressure and Wind (SLP, wind, waves associated with wind)

- QC, homogeneity, metadata, uncertainty, analysis

Session III: Cross-cutting Issues

- databases, reanalyses (fluxes, ocean reanalysis, GODAE), statistical analysis techniques, QC

Announcement by mid March