UNOLS Fleet Utilization and Projections
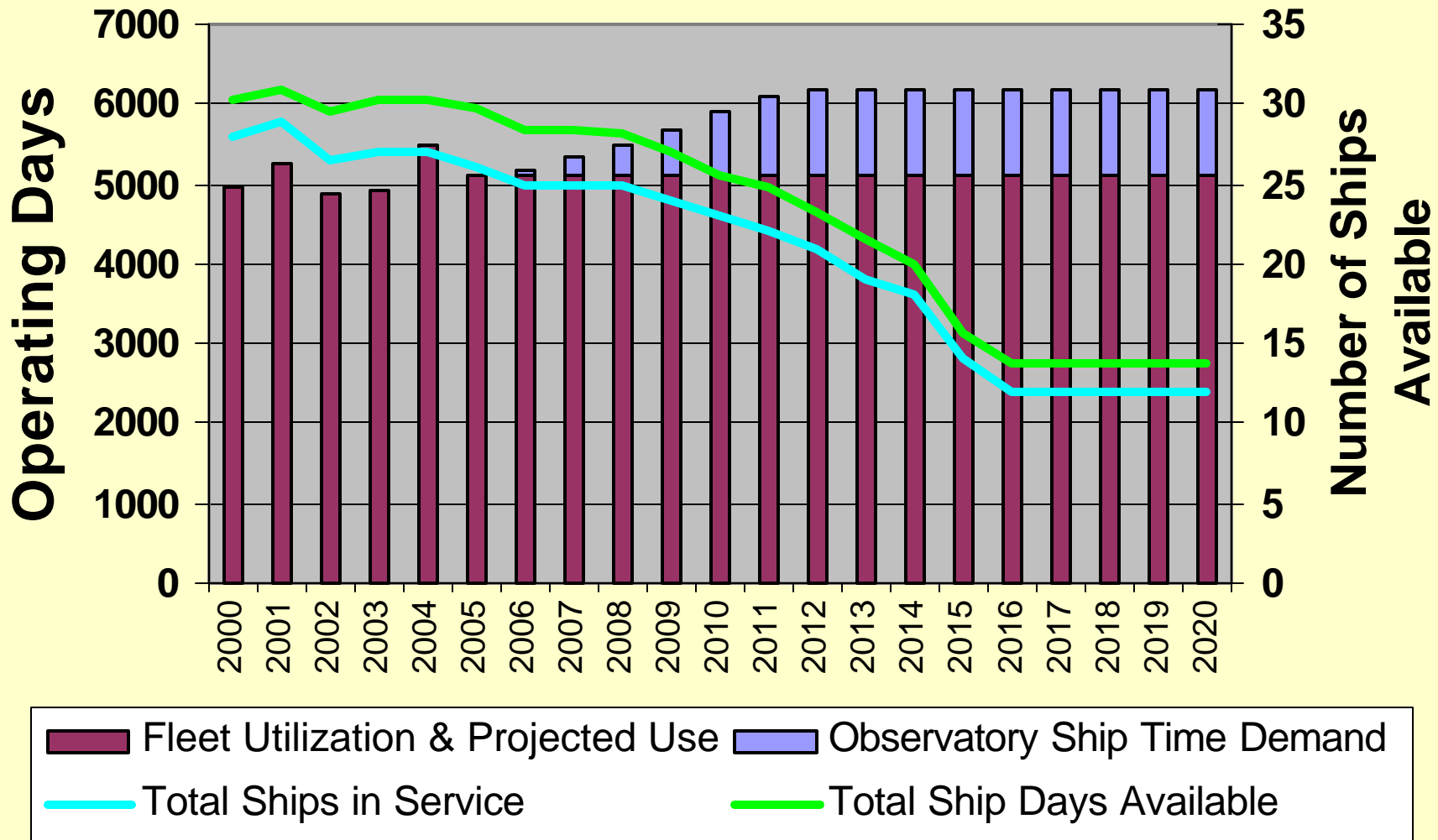## (2000 - 2020)

Legend:
- � bar— Fleet Utilization & Projected Use
- ▪blue bar— Observatory Ship Time Demand
- ━cyan line— Total Ships in Service
- ━green line— Total Ship Days Available

* Only new construction with funds identified have been included in the total.

Global Ship Utilization and Projections

Ships needed in 2020:

Operating Days

| | 2400 | 2100 | 1800 | 1500 | 1200 | 900 | 600 | 300 | 0 |

2007

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Thompson *Revelle* *Atlantis* *Seismic*

Observatory Global Ship Time Demand

GLOBAL Use & Projected Use

Global Ship Days Available (FOY=300 days)
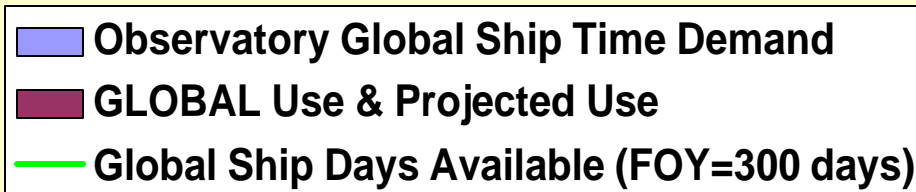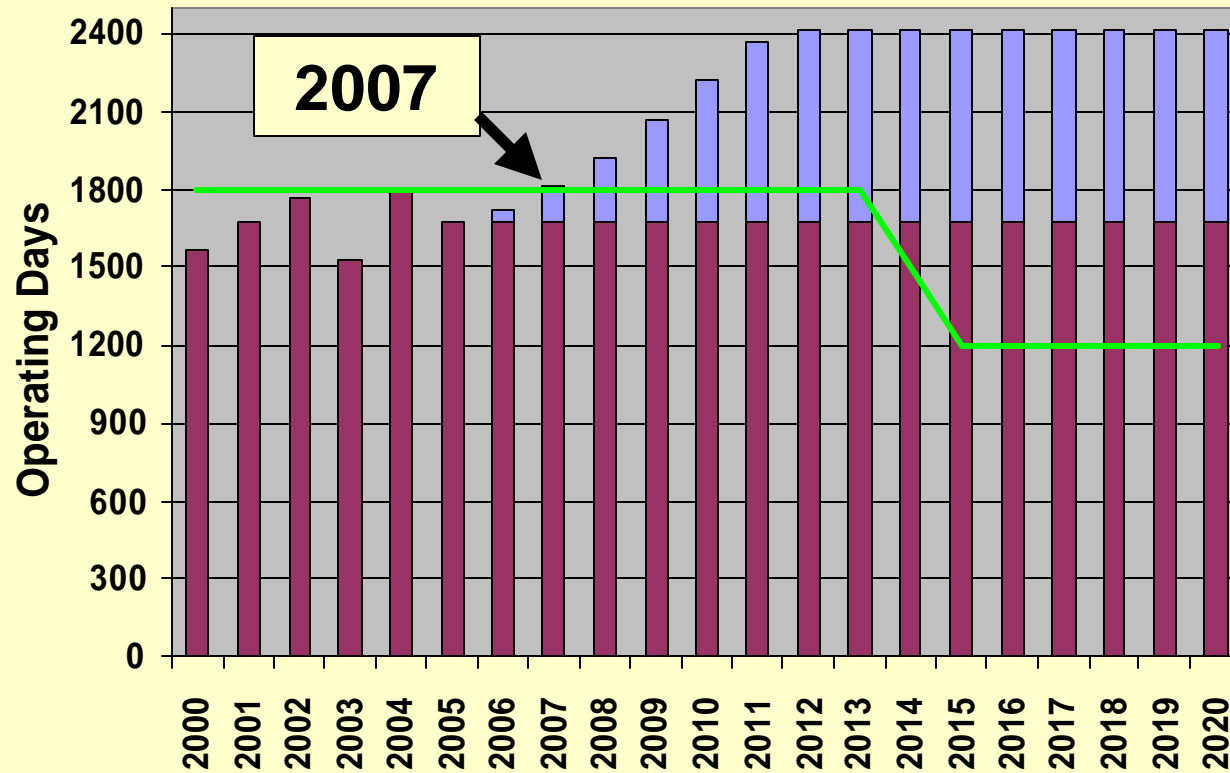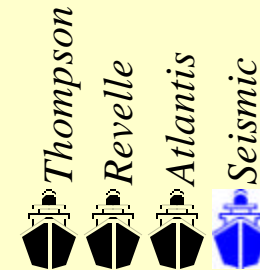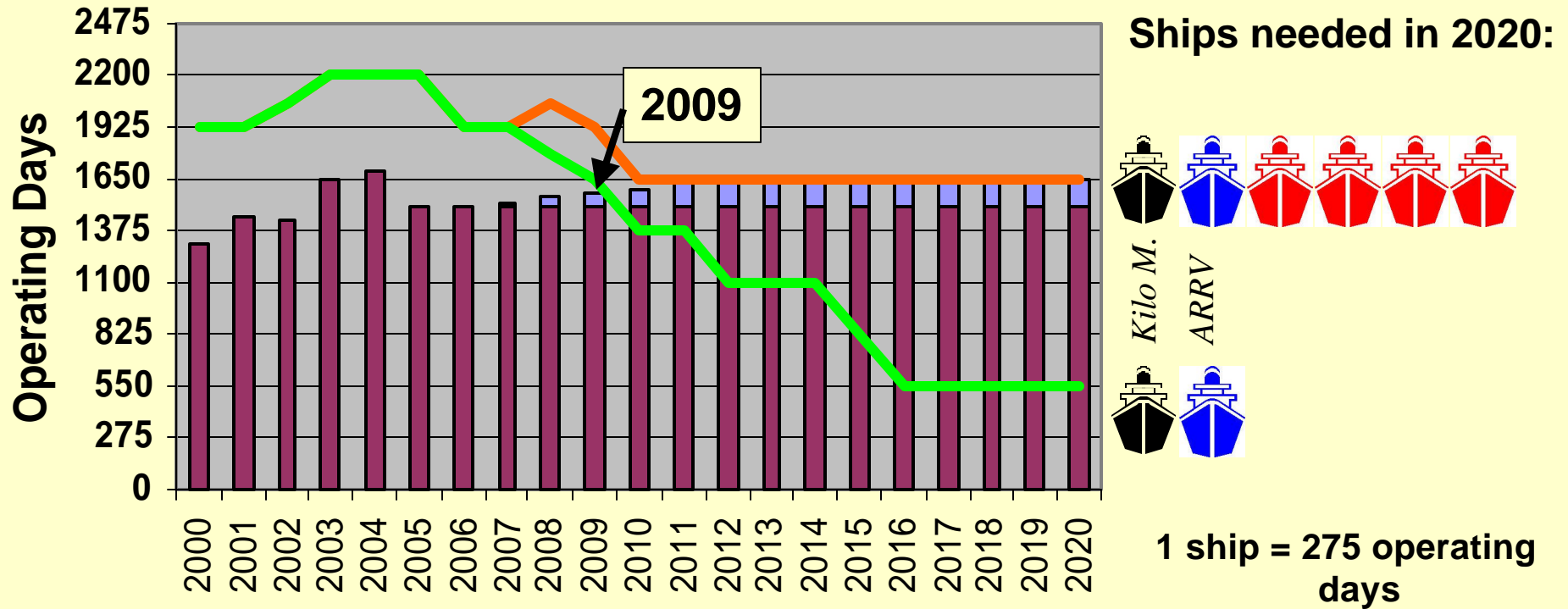
1 ship = 300 operating days

= existing ship

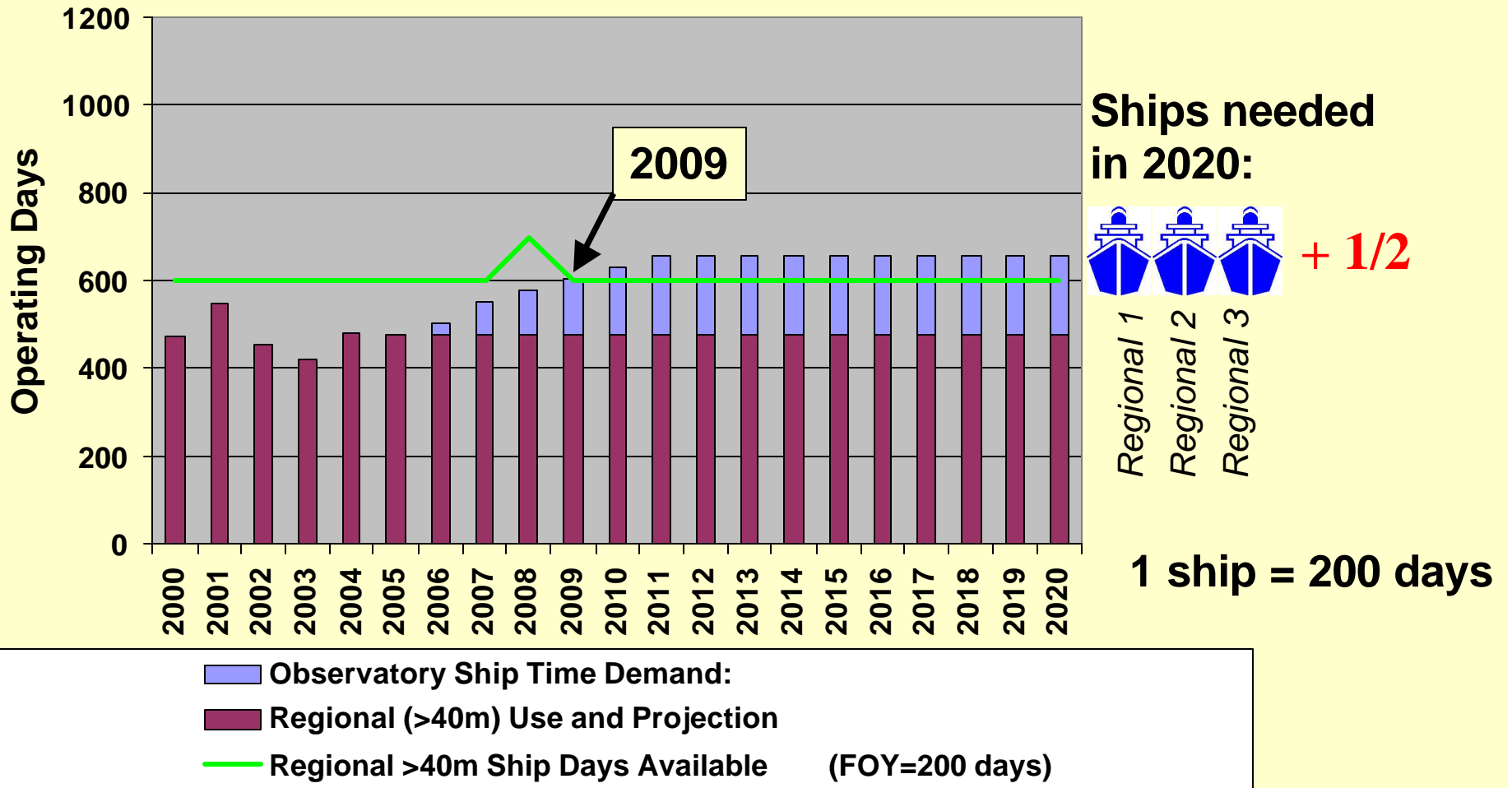= new construction (Seismic* vessel)

= ship needed to meet demand

* Seismic ship demand is expected to increase, this will make less time available for general purpose oceanography for this vessel.

Ocean/Intermediate Utilization and Projected Use

Regional Class >40m Utilization and Projections

Operating Days (y-axis: 0, 200, 400, 600, 800, 1000, 1200)

X-axis years: 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020

2009

Ships needed in 2020:

Regional 1   Regional 2   Regional 3   **+ 1/2**

1 ship = 200 days

- ▬ **Observatory Ship Time Demand:**
- ▬ **Regional (>40m) Use and Projection**
- ▬ **Regional >40m Ship Days Available   (FOY=200 days)**

Regional Class (<40m) - Utilization and Projections

Ships needed in 2020:

$+ 1/2$
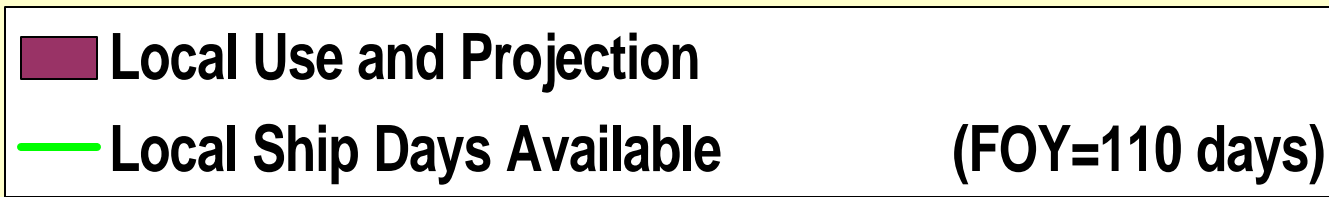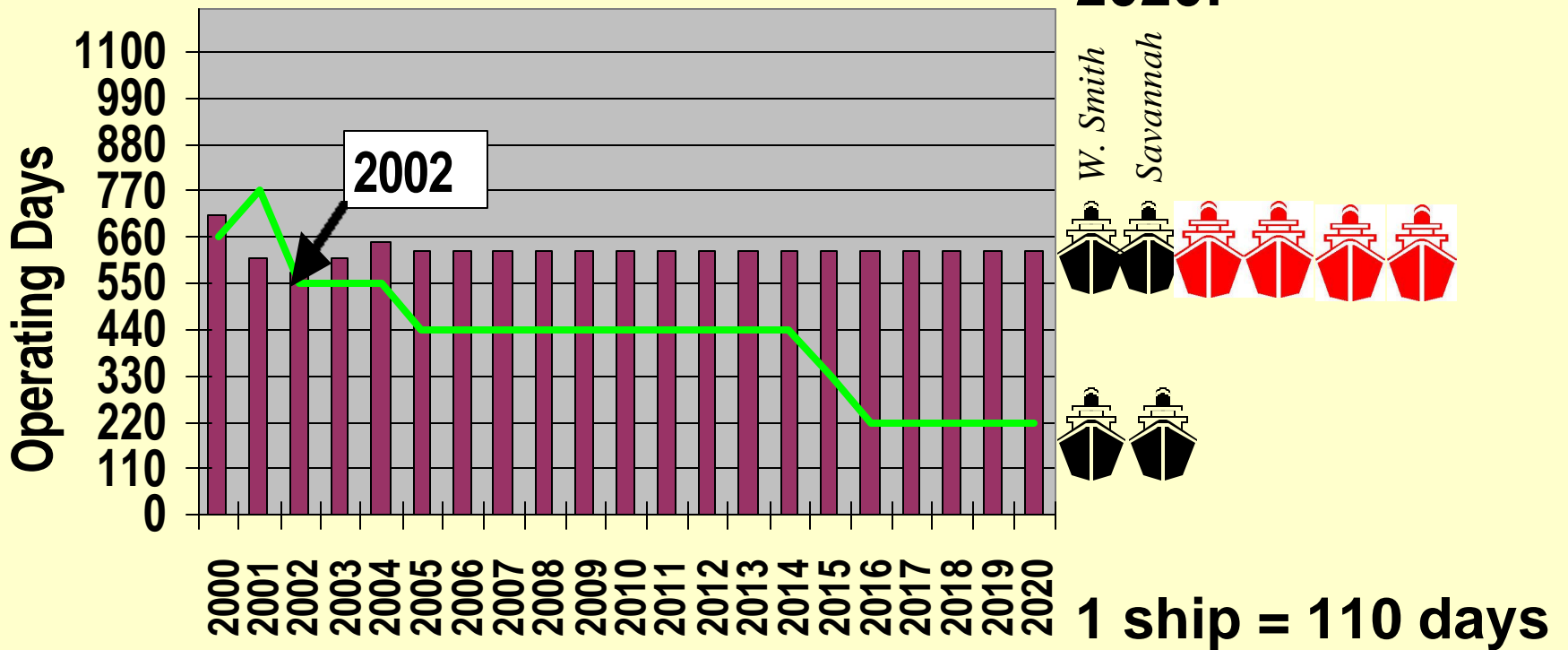
CHRV
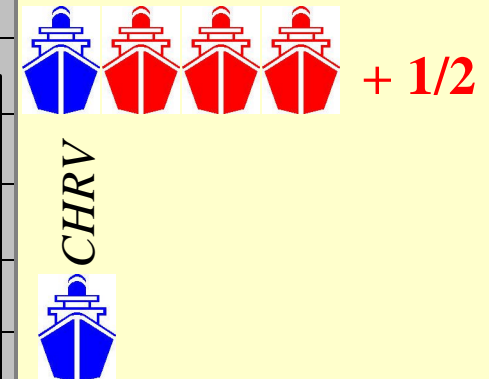
1 ship = 180 days
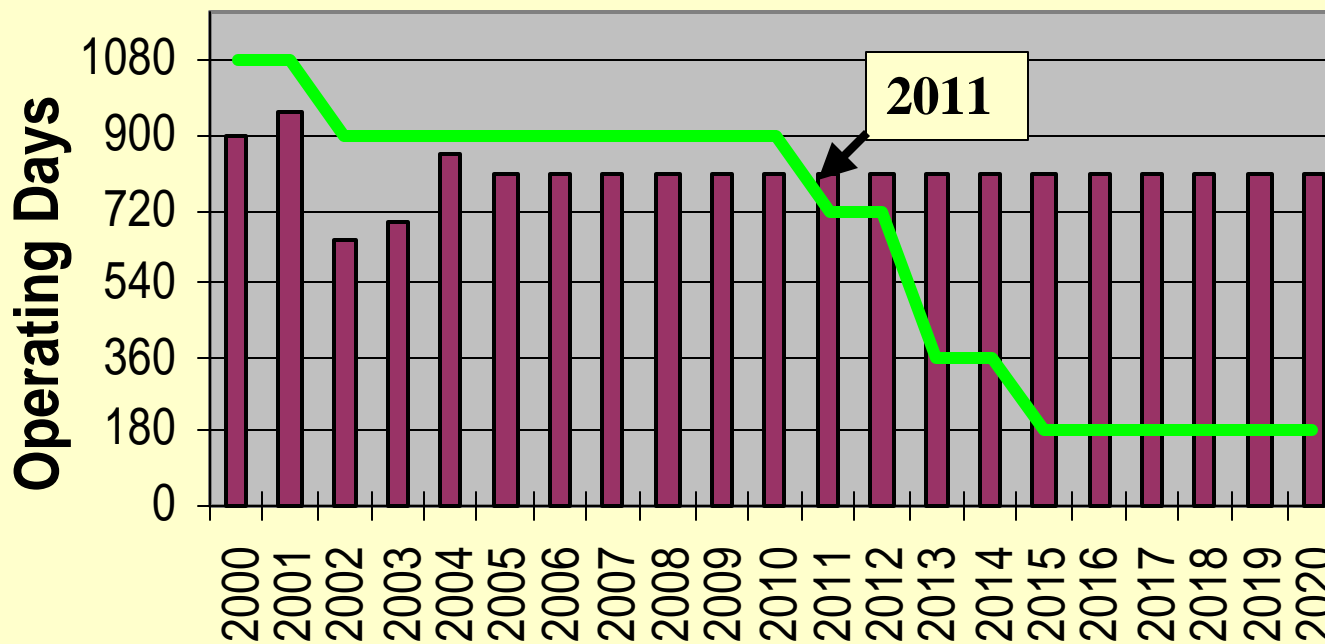
Legend:
- Regional (<40m) Use and Projection
- Regional <40m Ship Days Available (FOY=180 days)

Local Class - Utilization and Projections

Ships needed in 2020:

Operating Days

1100
990
880
770
660
550
440
330
220
110
0

2002

W. Smith *Savannah*

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

1 ship = 110 days

Local Use and Projection

Local Ship Days Available   (FOY=110 days)

In Summary…

- The current Fleet includes 27 ships. In 2020 six of our current ships will still be in operation. Assuming that the new seismic vessel, ARRV, 3 NSF Regional vessels, and the CHRV are funded, six additional ships will be available for a total of 12 ships.

- With the addition of Ocean Observatory ship time (installation and O&M), demand is expected to increase ~1000 days by 2020.

- The additional Observatory ship time represents over 40% of the current use of the Global Class:
  - This is the most expensive day-rate category
  - Observatory needs will compete with the major interdisciplinary research programs that rely on the Global Class Vessels

- Funds to support the estimated future increase in ship time have not been identified.

Summary - continued

- In 2020, a total of 21 <u>NEW</u> ships will be needed to meet estimated ship time demand (includes observatory ship time):
  - 5 Global ships (includes Seismic)
  - 5 Ocean Class ships (includes ARRV)
  - 3.5 Regional Class >40m ships (includes the 3 ships to be funded by NSF)
  - 7.5 Regional and Local Ships < 40m
- The ship time projections indicate catastrophic consequences to further delays in new vessel design and construction.