Curators of Marine & Lacustrine Geological Samples

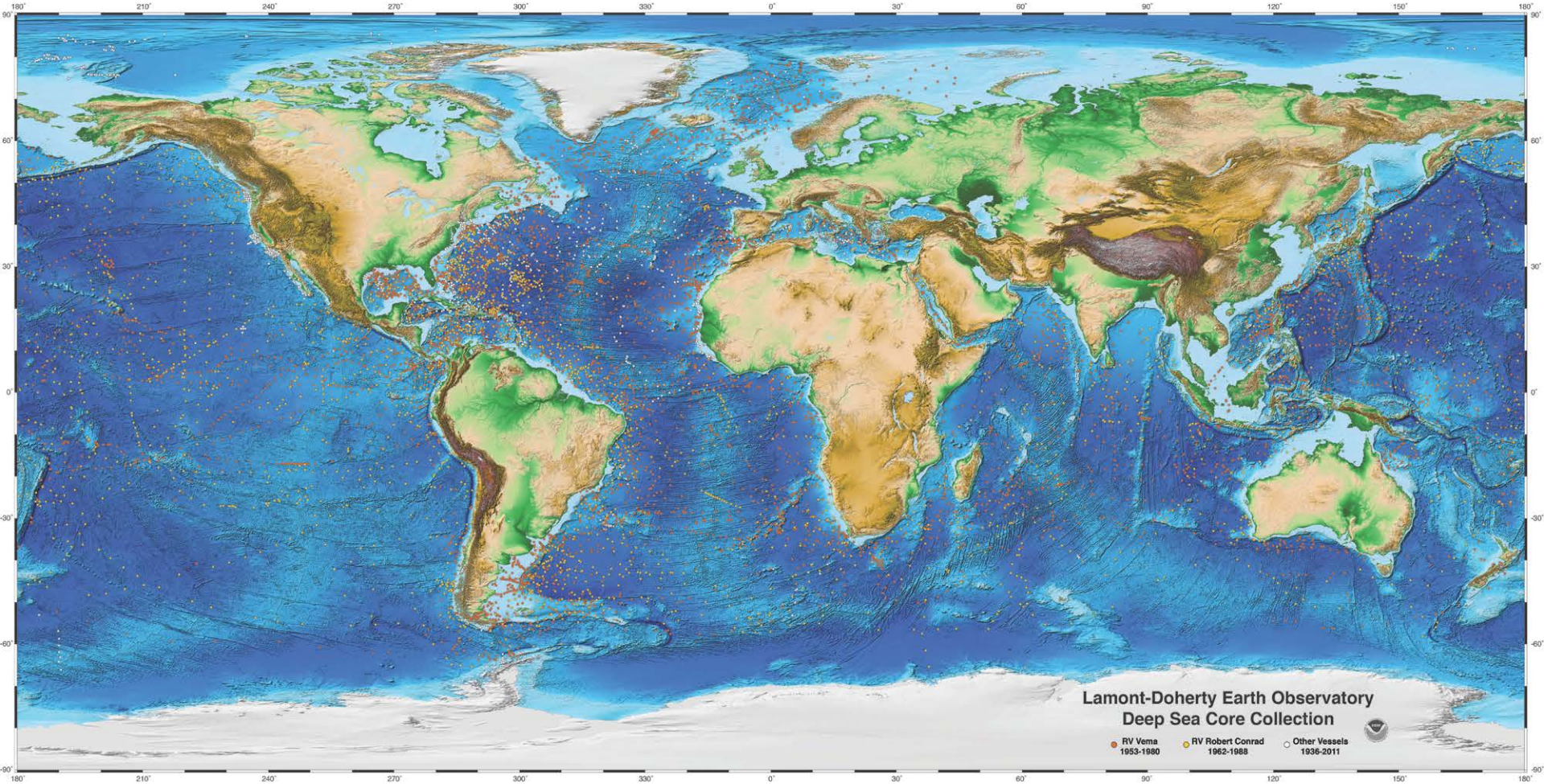
April 25-27, 2017

OSU – MGR

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

LAMONT-DOHERTY CORE REPOSITORY

69 Years of Coring the Ocean Floor



http://www.ldeo.columbia.edu/core-repository

THE COLLECTION

Total Cores	**19,177**
Total Sites	**15,178**
Dry Stored	**14,111**
Wet Stored	**5,065**
Dredges/Grabs	**2,808**
Residuals	**225,000**
Coral Cores	**541**
Terrestrial Cores	**143**
Total Samples	**37,847**

PHYSICAL SPACE

Refrigerated Wet Core Storage — **3,279sf (additional 1,387 online 2018)**

Dry Core Storage — **5,380sf**

Until 1984, the cores in our collection were kept at room temperature, in open, metal trays.

These empty cages are now full and we will be re-opening the rest of our refrigerated space next year.

PHYSICAL SPACE

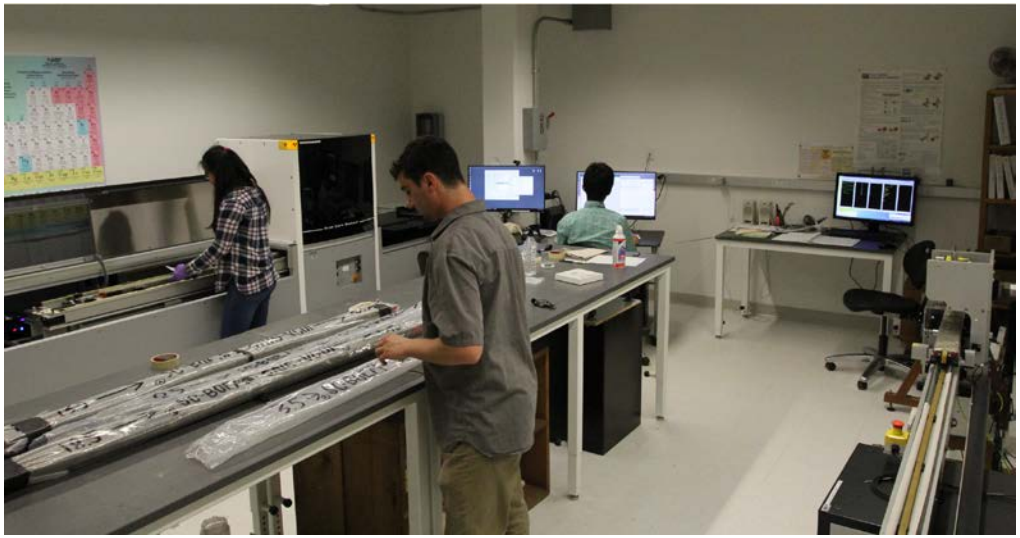
Coral Archive and Residuals 765sf

Since the beginning, we have collected residual/unused samples from our cores and began curating coral samples in 2013. Both the drawers on the left and the shelving on the right were built by our facilities crew.

PHYSICAL SPACE

Sediment Analysis Lab	**900sf**
MST / XRF Lab	**475sf**

We have a new sediment washing and analysis lab with two ‘automatic’ washing stations, sedigraphs for fine fraction grain size analysis, a coulometer for carbonate content, freeze driers.



We also have new lab space for our Geotek MST and an Itrax XRF core scanner. The Itrax was installed in February 2016 and has run almost 1km of samples in the past year!

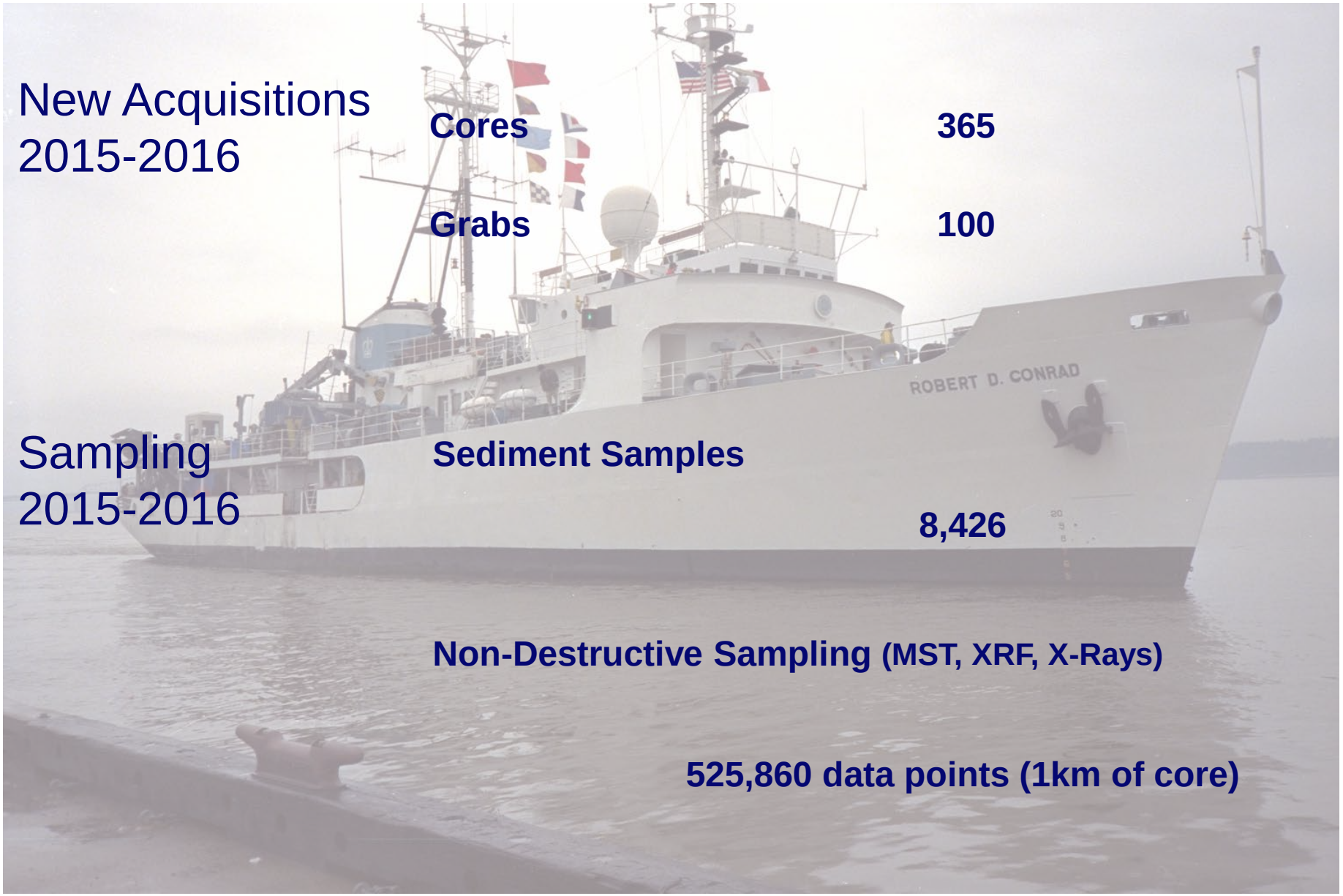
PHYSICAL SPACE

Sampling Lab / Teaching Displays **1,281sf**

Our sampling lab doubles as museum/classroom space for our visitors. We have permanent displays as well as materials for hands on activities: sieves, microscopes, flow-in, prepared slides…

VISITORS 2015-2016

Inside Lamont/Columbia (classes, summer interns…)	**361 people**
Outside Lamont/Columbia (high school classes, visiting scientists/speakers, other groups)	**968 people (324 so far in 2017!)**
Media (for interviews, footage)	**5 crews**
Training (on lab equipment, sampling)	**25 students**



New Acquisitions 2015-2016

Cores	**365**
Grabs	**100**

Sampling 2015-2016

Sediment Samples	**8,426**

Non-Destructive Sampling (MST, XRF, X-Rays)

525,860 data points (1km of core)

Standard data collected:
Metadata, Descriptions, Photographs.

No analytical data collected as routine.

Analyses available: MST, XRF, X-Radiography, Carbonate Coulometry, Grain Size.

Our curation process:

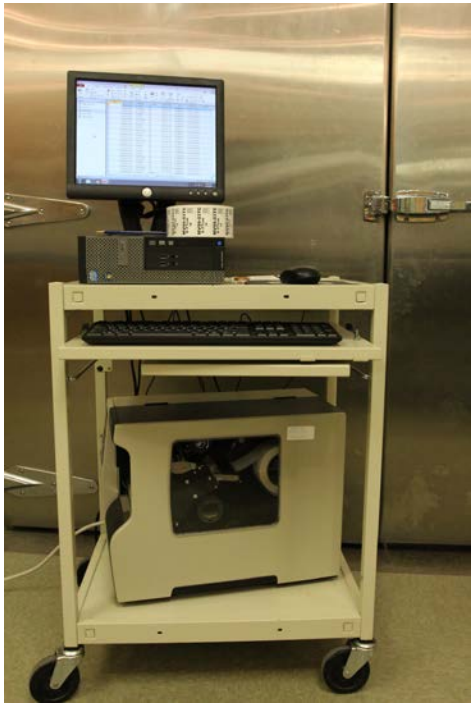
* Cores arrive - split or unsplit.

* If unsplit – we cut them down to 5 foot lengths and split them (new core splitter will be finished end of April).

* After splitting, cores are photographed and described.

* All metadata is uploaded to SESAR for IGSN's, then to the IMLGS.

* Once IGSNs are received, core d-tubes are labeled with QR codes.



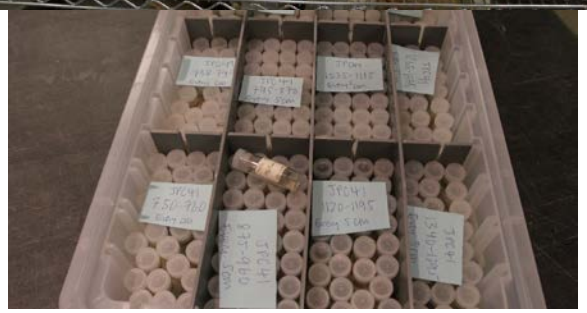
Our labels list the core name, section number and half (archive/working), and the depth interval in the tray/d-tube along with the QR code and IGSN.

All of our samples are in the IMLGS and have IGSNs but we still need to:

*Add QR code labels to all of the trays/d-tubes

*Catalog the rest of our residual samples and make them accessible online

*Digitize our sample histories and legacy data (grain size, carbonate content, bulk densities)



Find us online!