IHO Capacity Building: Industry Contribution

Paul Cooper – CARIS USA
Don Ventura – Fugro Pelagos Inc.

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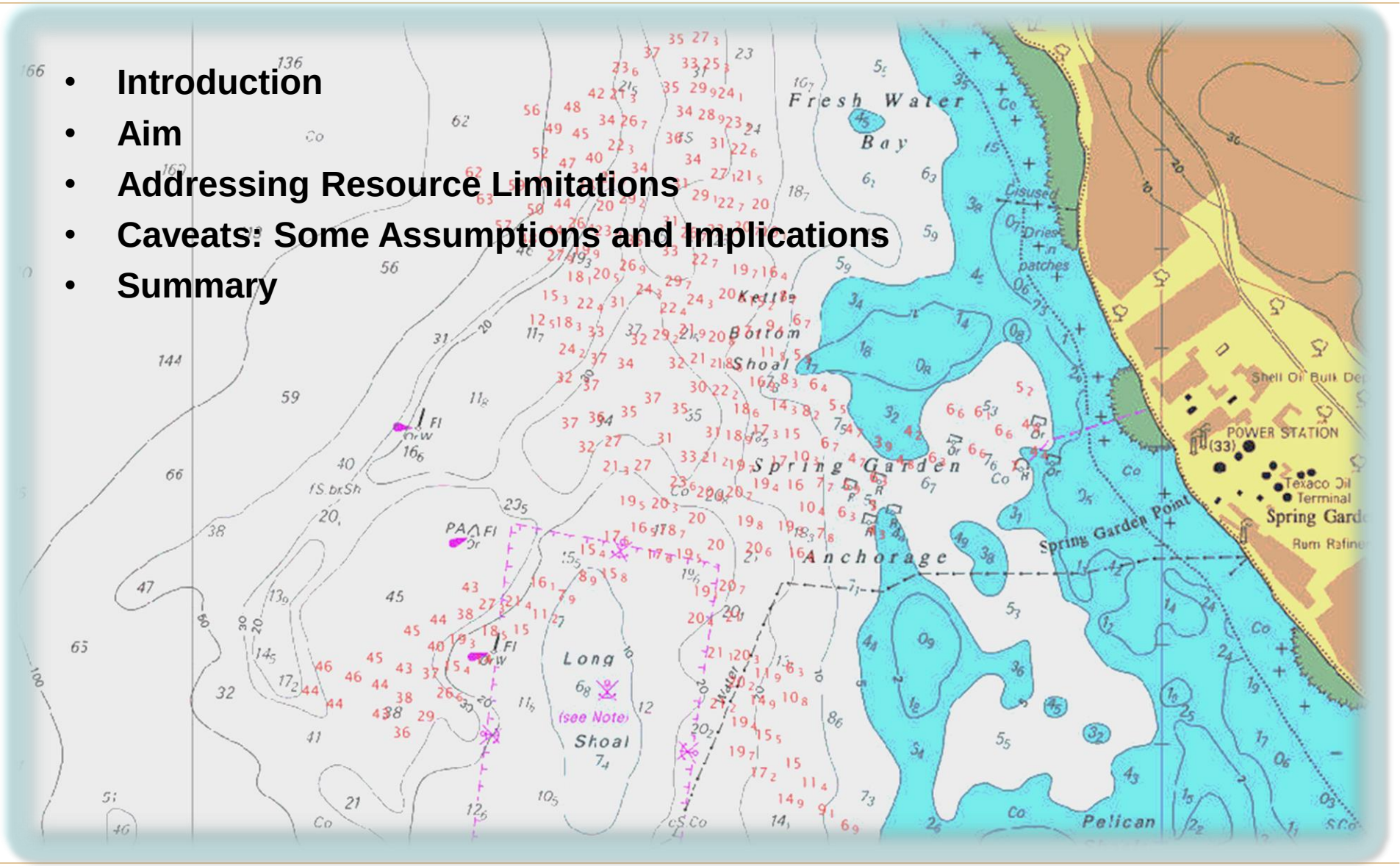
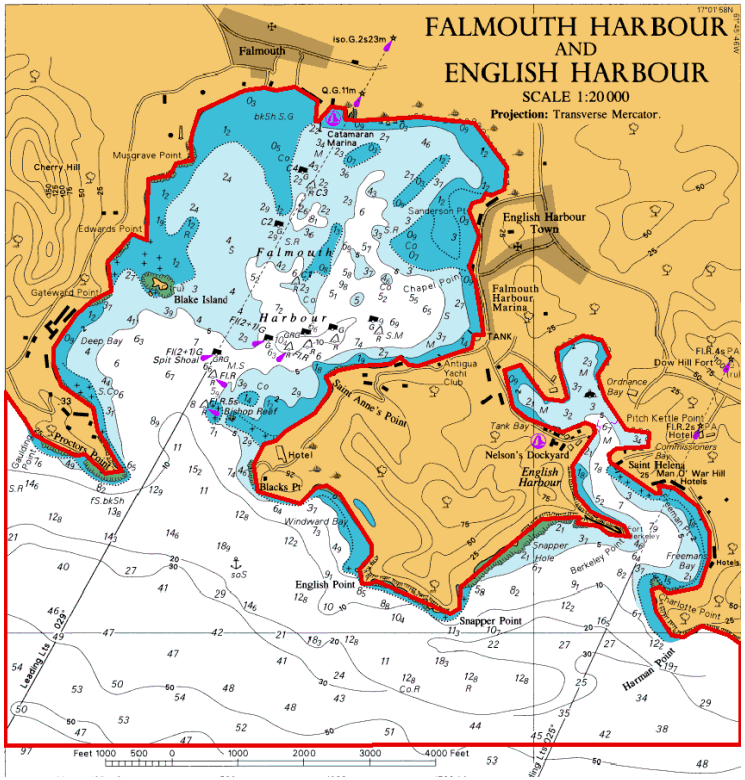


Introduction

- Capacity Building (CB) is a strategic component of the International Hydrographic Organisation (IHO) approach to achieving its mission and objectives.
- Industry proposes it can contribute meaningfully to a CB initiative led by the IHO.

Aim

- The aim of this presentation is to describe what a successful Capacity Building Program requires and introduce an integrated concept of Industry and Government collaboration.



The Framework for a Successful Hydrography Capacity Building Program:

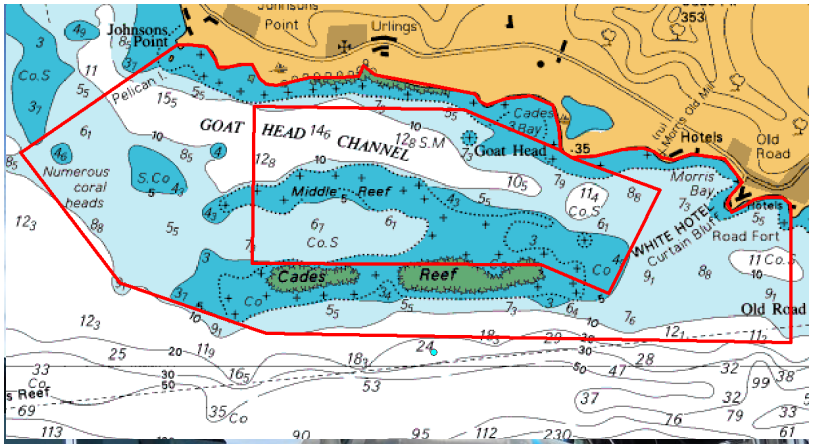
Successful Capacity Building refers to intentional, cooperative, coordinated, long term, and mission-driven efforts aimed at developing and strengthening the operations and management of an HO

The " CB Givens" of organization development must be accepted and established:

- Long Term Program Design and Strategic Planning
- Long term commitment to continued support and involvement by host
- Long term commitment to continued support and involvement by donor
- Continuing technical capabilities training

Caveats: Some Assumptions and Implications

- The Host Region / Nation must have:
  - Recognized and stated requirements for data collection, charting, and other uses;
  - Sustainable resources;
  - Demonstrable real-term contributions in the form of personnel, facilities, and platform(s);
  - Access to and permission to use existing national data, both digital and analogue, for use in the program;
- **The host must become <u>the</u> major stakeholder**.



Caveats: Some Assumptions and Implications

- The involvement of Industry needs to be recognized as a collaborative approach with the IHO, not in competition or replacement to it.
- Industry training costs and all incurred direct overheads need to be covered, such as travel and accommodation of personnel etc.
- IHO must continue to lead at the political level
- A sustainable continuity training programme needs to be agreed.

Development of the Organic Capability

- A CB Strategy requires to be identified as a **National Priority**
- The Host Nation must ***self recognize*** and identify the need for hydrography as part of their National Geospatial Data Management Policy, supported and fuelled with various active Programs and/or Projects ("***The Three P's***).
- **Policy**: National Strategic-Level document passed by Government. The framework underpinning the initiatives to provide organic capability in hydrography and cartography.
- **Program**: e.g. MSI, Surveying, Charting in the IHO Capacity Building model.
- **Project**: e.g. a one-off charting requirement. Conducted as Capacity building/assisting/cooperation and often within a larger Program, but sometimes independent.

Attendees from Industry and Agencies

ELAC Nautik

Regular RHC Attendees

ELAC Nautik

Capacity Building Active Participants

How do we tap into this rich resource?

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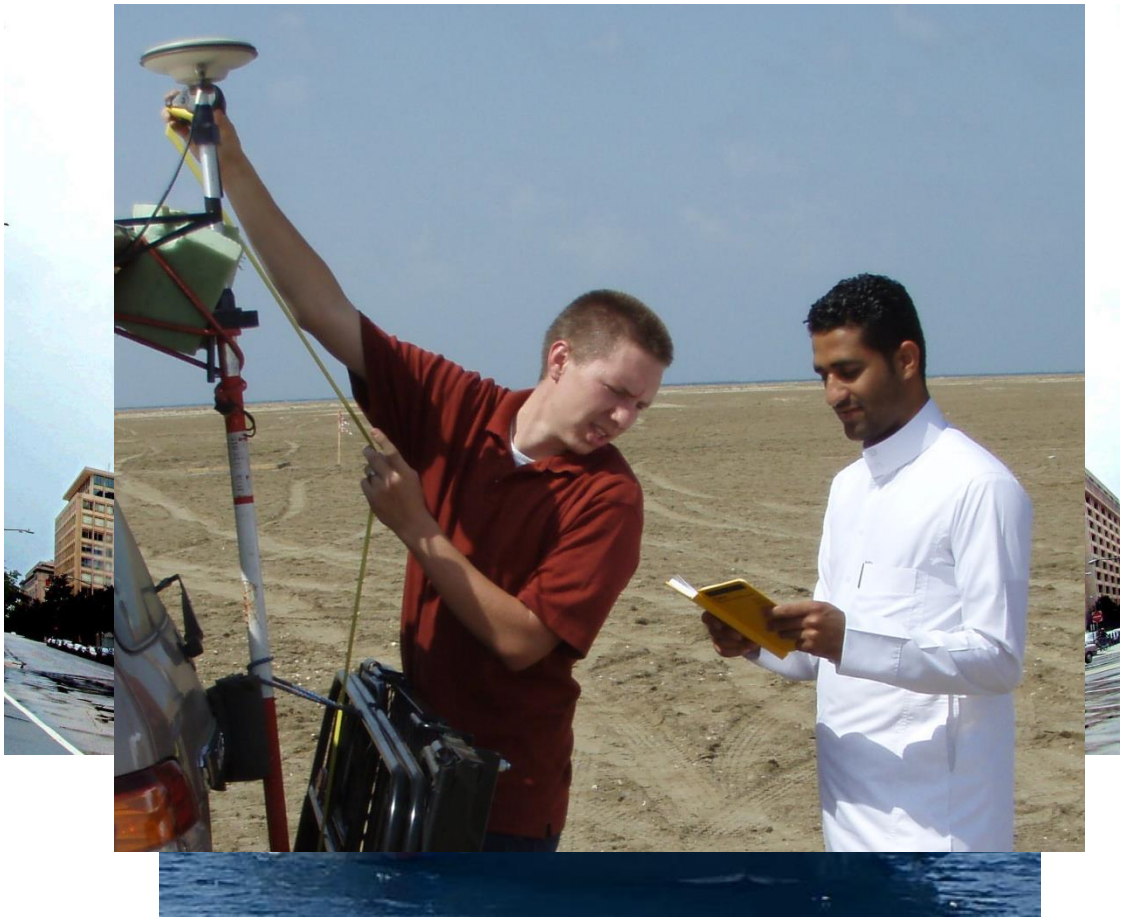
Addressing Resource Limitations

- The primary areas of resource enhancement that industry collaboration would seek to address are:
  - Funding Estimates
  - Education
  - Training
  - Organic Capability
  - Sustainability



Addressing Resource Limitations: Funding

- Whilst it is evident from discussions that the mechanisms are in place to bid for enhanced funding, leverage for such has yet to be fully exploited.
- It is not considered that the current CBSC funding or structure is intended to support the IHO-Industry collaborative initiative outlined here*
- Separate and substantial funding from external sources must be robustly proposed and argued.

*http://www.iho.int/mtg_docs/com_wg/CBC/CBSC10/CBSC10.htm

Addressing Resource Limitations: Education and Training

- Industry can support the equipment and continuation training until operators are confident and qualified to conduct these functions independently.
- In-country donor organisations could also include those that would benefit directly from improved hydrography e.g. port associations/operators, cruise ship companies and transport ministries etc.
- Industry-initiated distance learning in hydrography and other education delivery systems are available to all nations regardless of organic capability
- Industry can support these types of initiatives on a cost plus basis.

Addressing Resource Limitations: Achieving Sustainability

- Sustainability is a metric to the success of a long-term proposal
- Can be monitored by the international community by the study of:
  - the level of activity
  - volume of output
  - …and actual quality of hydrographic contributions made by a host nation.
- Attainment of organic capability and a stable organization, workforce and programme of work will assure sustainability
  - latter elements are much more dynamic
  - this can erode the long term effects of such a program.
- Successful Sustainability = Necessary Capacity ***Built***

Example of Sustainability: General Commission of Surveys, KSA

- In 2009, GCS commissioned a ‘pilot project’ survey of some 3,852km^2 (Project 1)
- IHO Order 1a, combined MBES and ALB including 3km topo fringe providing seamless topo-bathy interface and tie-in to national terrestrial data
- Forward thinking survey planning even then
- To date, 4 more projects of increasing size and contractual complexity undertaken; 2 more being planned
- Latest project (P5) includes provision of a new survey ship and 2 launches, national marine geospatial database implementation and comprehensive training in all aspects of the project in addition to the 11,426km^2 IHO Order 1a survey
- Lots of resource for sure, but also well conceived and executed ***national survey plan*** utilizing expert, in-country consultative services, clear and consistent ***national priorities and requirements***, and close ***engagement*** between client and contractors.

Examples of Sustainability

- From 1964 – 2005 the US Navy through the Naval Oceanographic Office directed and managed a hydrographic capacity building program using a model that emphasized cooperation. Some of the successful results of that Program are currently IHO member states and leaders in hydrography:

- Republic of Korea Hydrographic and Oceanographic Administration

  - Tunisia/ Serivce Hidrographique et Oceanographique

  - Kingdom of Morocco/Royal Moroccan Navy Division de Hidrographique, Oceanographique, et Cartographique

  - Colombia Centro de Investigaciones de Oceanografia e Hidrografia

- Republic of Ecuador Instituto Oceanografico de la Armada

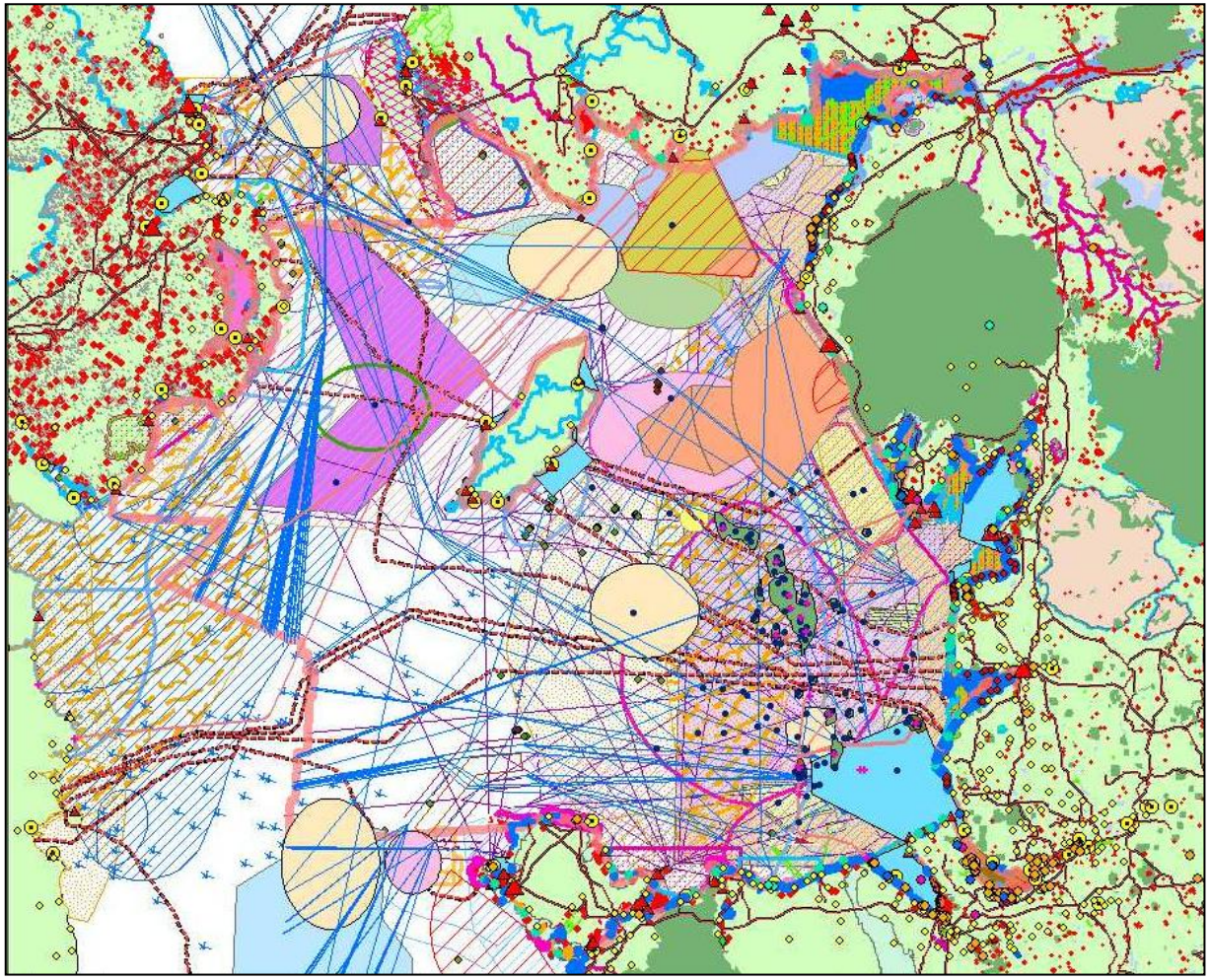
Ingredients for a Successful Capacity Building and Technical Cooperation Program

- Host Nation Commitment
- Donor Nation Commitment
- Formal High Level Agreement
  - Identifies Cooperating Agencies
  - Identifies Resources
  - Identifies Data distribution and ownership
  - Identifies Production
  - Identifies Product distribution
  - Identifies Training Opportunities
  - Implies continuation of program at the pleasure of each participant

Caveats: Recognising Potential Stakeholders

- **This slide is a good representation of why this is important**
- **Remember this is only a small portion of a typical coastal scenario**

- Land Use
- Tourism
- Oil & Gas
- Mariculture
- Coastal Defence
- Ports & Navigation
- Military Activities
- Culture
- Conservation
- Dredging & Disposal
- Submarine Cables
- Fishing
- Renewable Energy
- Marine Recreation
- Mineral Extraction



Source: Defra Irish Sea Planning Pilot – 2006

Summary

- This entire concept relies upon the IHO recognizing the potential of an Industry contribution to Capacity Building.
- Industry cannot undertake CB alone – neither can IHO or the host nation.
- IHO should become increasingly aware of the real and viable mechanism for output-focused Capacity Building that industry engagement provides.
- Industry can contribute through technology development, innovation and professional services in ways that cannot be initiated and/or supported by a national hydrographic agency alone.
- Derived capability and engagement through Industry participation has the potential to release future funding for regional/host nation organic capability.

Summary

- Any strategy would have to be in line with IHO guidelines
  - either with individual nations,
  - collective nations (eg. Island groups)
  - …or at RHC level.
- Industry expects that stakeholders and recipients will contribute to CB efforts.
- Sustained support, education and training must be included in any package.

So, some questions to ponder…

- How do you build capacity with very limited budgets?
- How do you create the situation that allows a sustainable program to be developed?
- Who can help you develop or advise on your national plans?
- How do you know if your national plan is as good as the next guy?
- How do you know you are getting value for money?
- Where do you go to get unbiased opinions and advice?
- How can you assess when the time has come to do things yourself?
- Is maintaining previous relations with Industry important?

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Thank You