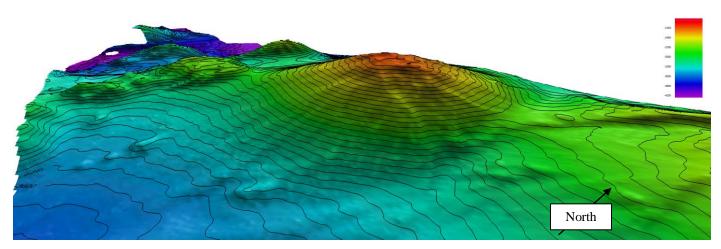
## INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

#### UNDERSEA FEATURE NAME PROPOSAL

(Sea **NOTE** overleaf)

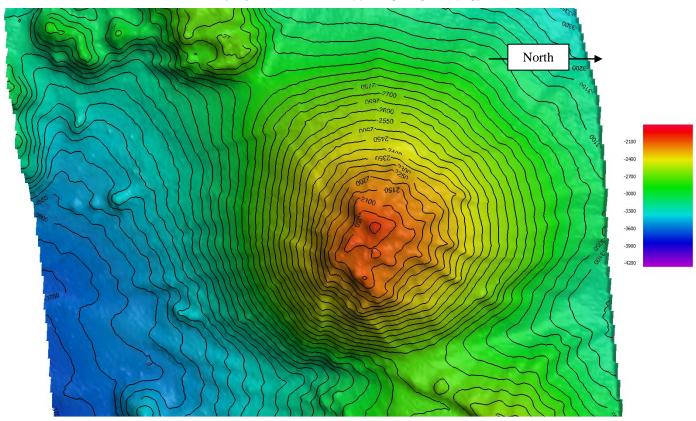
Note: The boxes will expand as you fill the form.

			.,	·
- 1	Nama Drangadi	Indu Maru Caamaunt	Occan au Caai	Dhilinning Coo
- 1	Name Proposed:	Indy Maru Seamount	Ocean or Sea:	Philippine Sea



<u>Above</u>: 3D rendering of the proposed *Indy Maru seamount* detailed in the following proposal [Fledermaus]

[Indy Maru Seamount Supporting Image 001.png]



Above: Plan view of proposed Indy Maru Seamount feature [Fledermaus]

[Indy Maru Seamount Supporting Image 002.png]

	Geometry that best defines the feature (Yes/No):										
Point	Line	Polygon	Multiple points	Multiple lines*	Multiple	Combination of					
					polygons*	geometries*					

* Geometry should be clearly distinguished when providing the c	coordinates below.
10	
12 13 14 1 1 2 3	North

<u>Above</u>: Boundary perimeter of the proposed **Indy Maru Seamount** with 14 points. Lat/Lon of individual points is given in the following table [Caris]

[Supporting image 003.png]

Table 1.0 - Points defining the proposed Indy Maru Seamount feature

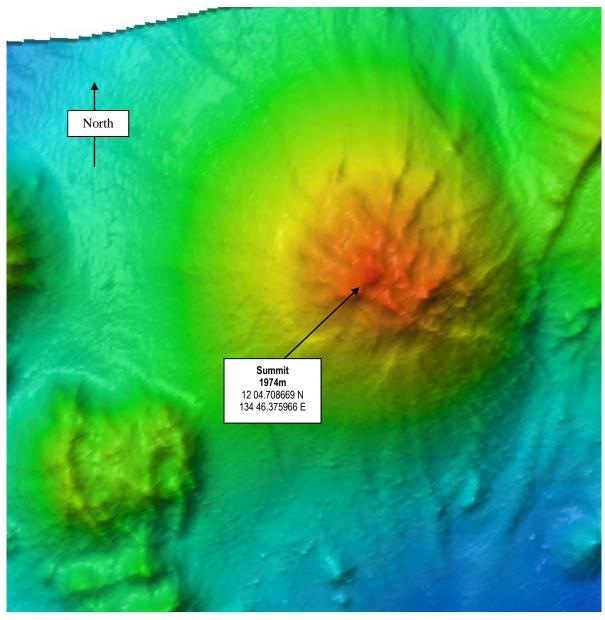
	Lat	Lon	Lat	Lon	Lat	Lon	Total Distance
	DD MM.MMM	DD MM.MMM	DD.DDD	DD.DDD	DD MM SS.SS	DD MM SS.SS	
Position 1	12 02.055553 N	134 44.944104 E	12.034259	134.749068	N 12 02 03.33	E 134 44 56.65	0.00m
Position 2	12 01.639175 N	134 46.289196 E	12.027320	134.771487	N 12 01 38.35	E 134 46 17.35	2558m
Position 3	12 02.359839 N	134 47.687506 E	12.039331	134.794792	N 12 02 21.59	E 134 47 41.25	5423m
Position 4	12 03.221970 N	134 48.264500 E	12.053700	134.804408	N 12 03 13.32	E 134 48 15.87	7326m
Position 5	12 04.252544 N	134 48.363043 E	12.070876	134.806051	N 12 04 15.15	E 134 48 21.78	9235m
Position 6	12 06.135430 N	134 47.738796 E	12.102257	134.795647	N 12 06 08.13	E 134 47 44.33	12886m
Position 7	12 07.334065 N	134 46.880219 E	12.122234	134.781337	N 12 07 20.04	E 134 46 52.81	15590m
Position 8	12 07.270455 N	134 45.183004 E	12.121174	134.753050	N 12 07 16.23	E 134 45 10.98	18672m
Position 9	12 07.047391 N	134 44.126947 E	12.117457	134.735449	N 12 07 02.84	E 134 44 07.62	20631m
Position 10	12 06.024967 N	134 43.297442 E	12.100416	134.721624	N 12 06 01.50	E 134 43 17.85	23043m
Position 11	12 04.523721 N	134 43.380232 E	12.075395	134.723004	N 12 04 31.42	E 134 43 22.81	25815m
Position 12	12 03.502731 N	134 44.022119 E	12.058379	134.733702	N 12 03 30.16	E 134 44 01.33	28029m
Position 13	12 03.192429 N	134 44.690328 E	12.053207	134.744839	N 12 03 11.55	E 134 44 41.42	29370m
Position 14	12 02.197675 N	134 44.925922 E	12.036628	134.748765	N 12 02 11.86	E 134 44 55.56	31253m

Table 1.1 - Point defining the centre of the proposed Indy Maru Seamount

	Centre	Lat	Lon	Lat	Lon	Lat	Lon
		DD MM.MMM	DD MM.MMM	DD.DDD	DD.DDD	DD MM SS.SS	DD MM SS.SS
Point		N 12 04.850	E 134 46.489	12.080839	134.774809	N 12 04 51.02	E 134 46 29.31

Table 2.0 - Coordinates for summit (shallowest point) of the proposed Indy Maru Seamount feature

	Summit Lat		Lon	Lat	Lon	Lat	Lon	
		DD MM.MMM	DD MM.MMM	DD.DDD	DD.DDD	DD MM SS.SS	DD MM SS.SS	
Summit	1974m	12 04.708669 N	134 46.375966 E	12.078478	134.772933	N 12 04 42.52	E 134 46 22.56	

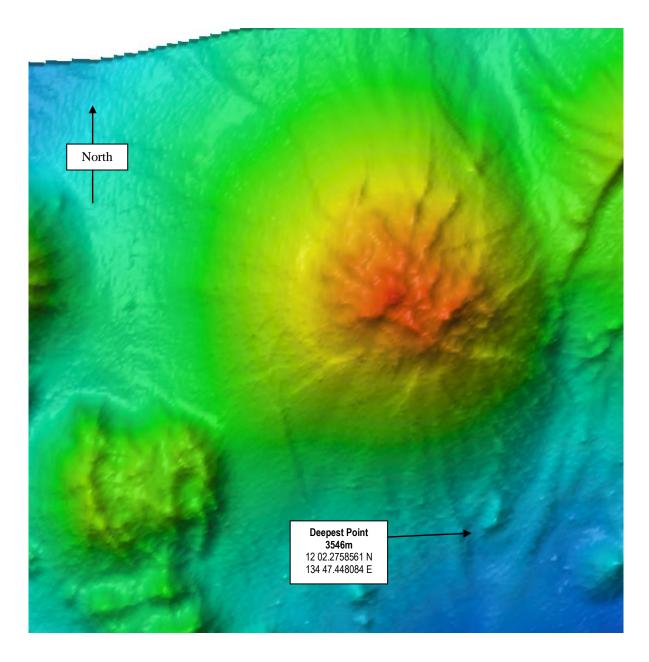


<u>Above</u>: Overview of the proposed *Indy Maru Seamount* with arrow indicating the location of the shallowest point measuring 1974m [Fledermaus]

[Indy Maru Seamount Supporting Image 004.png]

Table 3.0 - Coordinates for deepest point of the proposed Indy Maru Seamount feature

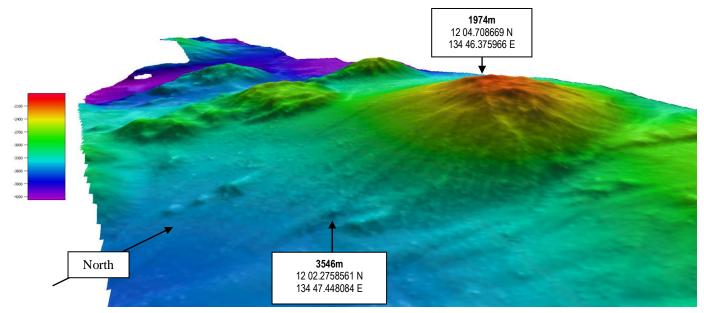
	Deepest Point Lat		Lon	Lat	Lat Lon		Lon	
		DD MM.MMM	DD MM.MMM	DD.DDD	DD.DDD	DD MM SS.SS	DD MM SS.SS	
Deepest Point	3546m	12 02.2758561 N	134 47.448084 E	12.037931	134.790801	N 12 02 16.55	E 134 47 26.89	



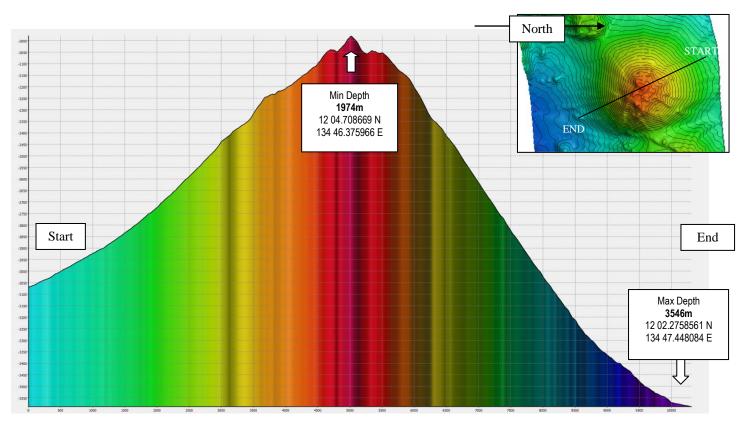
<u>Above</u>: Overview of proposed *Indy Maru Seamount* with arrow indicating the deepest point measuring a depth of **3546m** [Fledermaus] [Indy Maru Seamount Supporting Image 004.png]

Table 4.0 – Feature Description of Proposed Indy Maru Seamount

	Maximum Depth:	3546m	Steepness :	See individual profiles
Feature Description:	Minimum Depth :	1974m	Shape :	Irregular
	Total Relief :	1482m	Dimension/Size :	12000m x 8500m



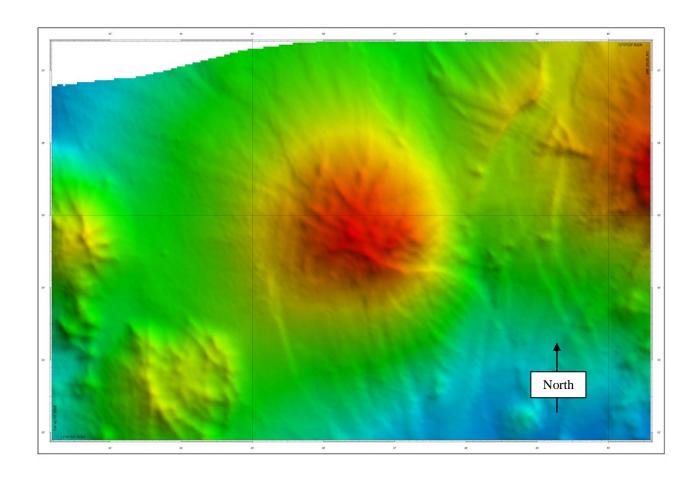
<u>Above</u>: 3D Overview of the proposed *Indy Maru Seamount* feature with both the summit and deepest location highlighted [CARIS] [Indy Maru Seamount Supporting Image 005.tif]



<u>Above</u>: Profile line through both the shallowest and deepest point of the proposed *Indy Maru Seamount*. [Fladermaus] [Indy Maru Seamount Supporting Image 006.tif]

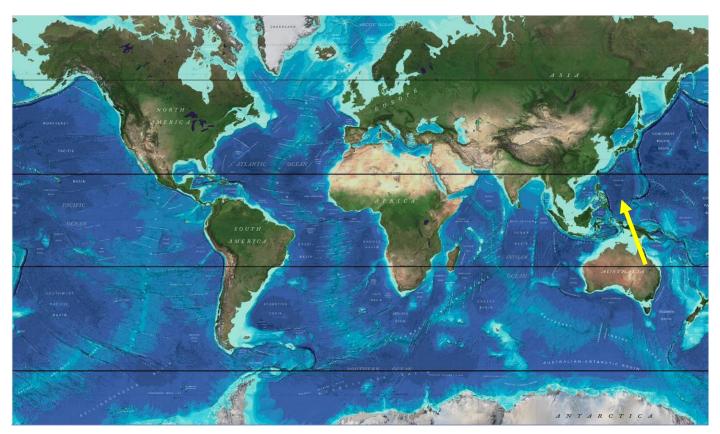
Table 5.0 - Profile line intersecting the shallowest and deepest point of the proposed Indy Maru Seamount

	Length	Start	End	Shallowest Point	Deepest Point	Total Relief
Profile Line Shallow to Deep	10306m	N 12 07.251, E 134 45.395	N 12 02.040, E 134 47.459	1974m 12 04.708669 N 134 46.375966 E	3546m 12 02.2758561 N 134 47.448084 E	1482m

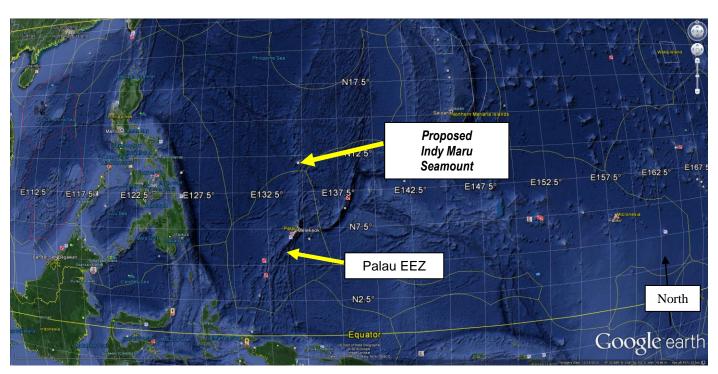


<u>Above</u>: Proposed *Indy Maru Seamount* feature with latitude and longitude grid in DD MM SS [Indy Maru Seamount Supporting Image 007.png]

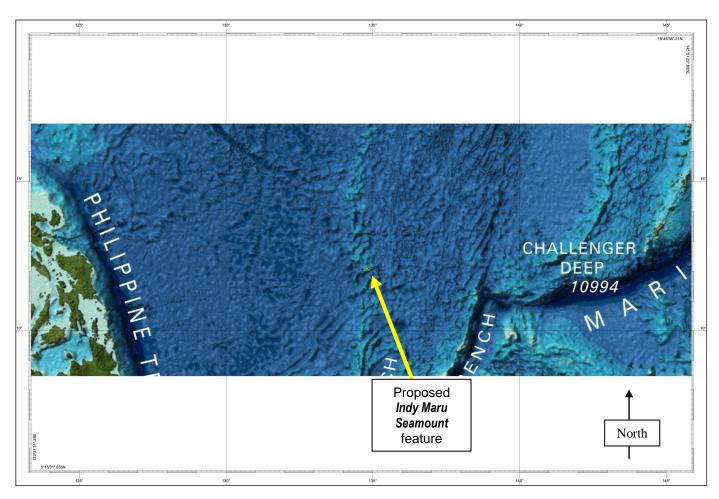
## Location of proposed Indy Maru Semount feature



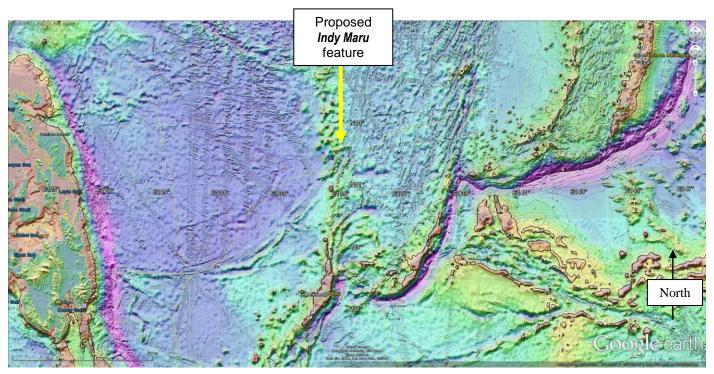
Above: Overview showing the location of proposed Indy Maru Seamount overlaid on Gebco World Map 2014



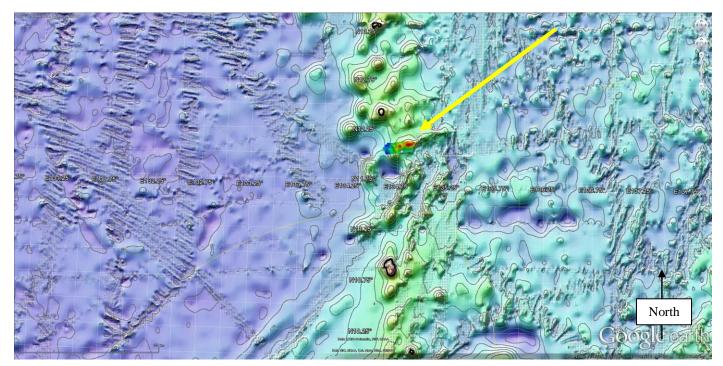
<u>Above</u>: Location of the proposed *Indy Maru Seamount*. The nearest EEZ to the feature is approximately **37.6 nm** (bearing **180\***) from the proposed feature. The nearest EEZ encompasses the island nation of Palau [Indy Maru Seamount Supporting Image **008.jpg**]



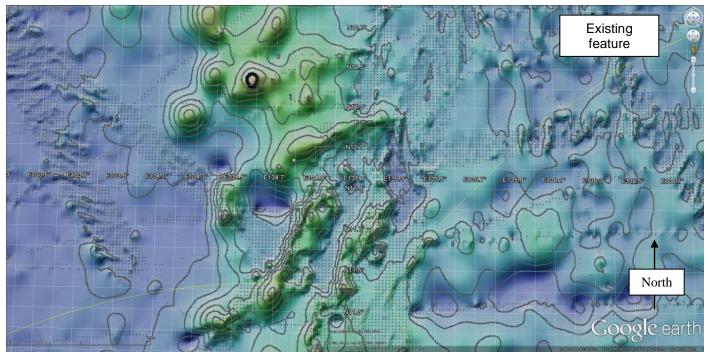
<u>Above</u>: GEBCO World Map 2014 showing the location of the proposed *Indy Maru Seamount*[Supporting image 010.tif]



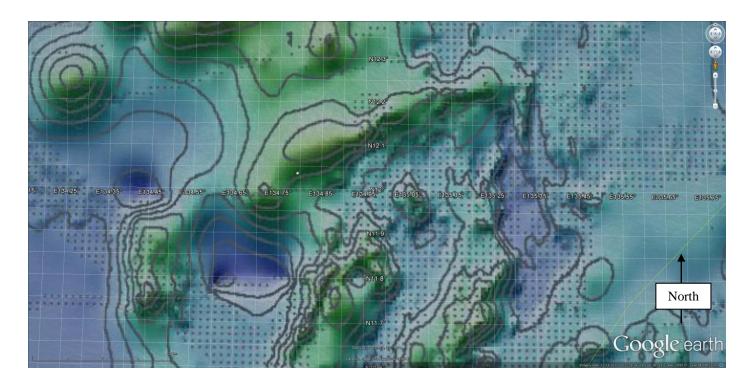
<u>Above</u>: Location of proposed *Indy Maru Seamount* on SRTM30\_PLUS V7 (Global Bathymetry and Elevation Data at 30 Arc Seconds Resolution: SRTM30 PLUS). This particular data set includes 290 million, depth soundings compiled and edited by investigators at SIO, NOAA, NGA, U.S. Navy, and GEBCO. The details are included in the following publication: http://topex.ucsd.edu/sandwell/publications/124\_MG\_Becker.pdf



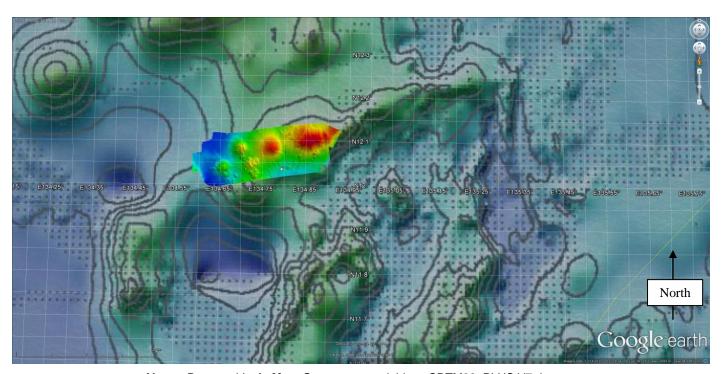
<u>Above</u>: Yellow arrow indicating the location of the proposed *Indy Maru Seamount* overlaid on SRTM30\_PLUS V7 data [Indy Maru Seamount Supporting Image 011.jpg]



<u>Above</u>: Existing data for the area from the SRTM30\_PLUS V7 dataset for the area of the proposed *Indy Maru Seamount* feature. *[Indy Maru Seamount Supporting Image 012.jpg]* 

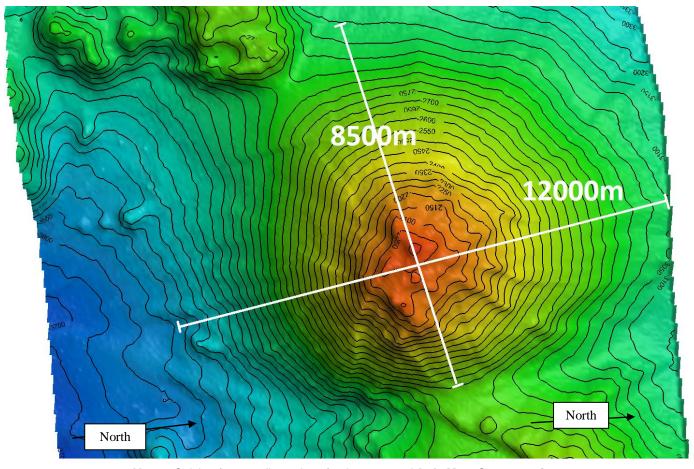


<u>Above</u>: Proposed *Indy Maru Seamount* overlaid on SRTM30\_PLUS V7 dataset. *[Indy Maru Seamount Supporting Image 013.jpg]* 



<u>Above</u>: Proposed Indy Maru Seamount overlaid on SRTM30\_PLUS V7 dataset.

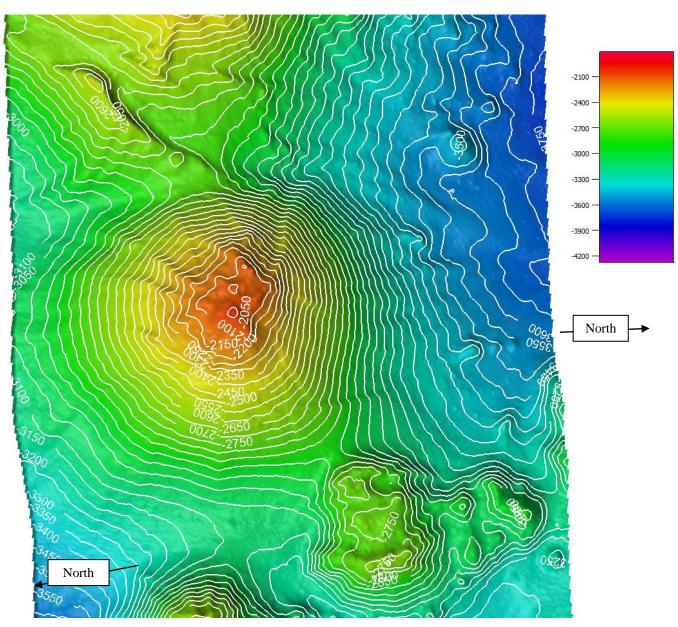
[Indy Maru Seamount Supporting Image 014.jpg]



<u>Above</u>: Quick reference dimensions for the proposed *Indy Maru Seamount* feature [Indy Maru Seamount Supporting Image 015.png]

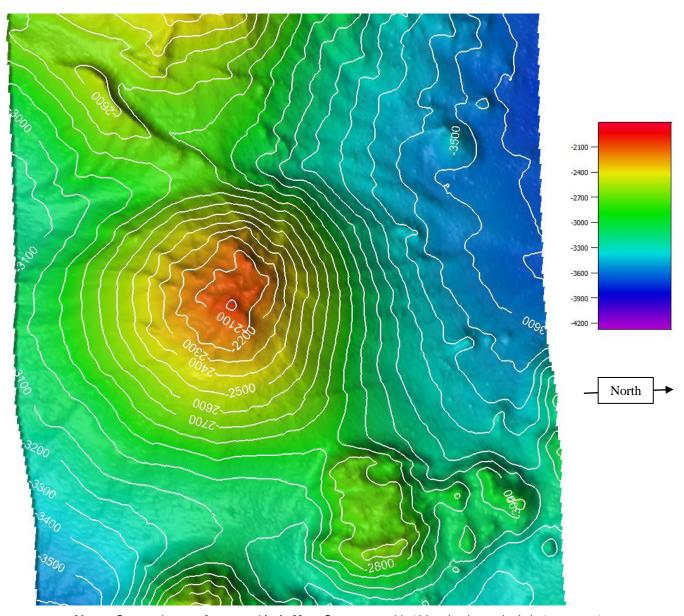
## Contour plots of Proposed Indy Maru Seamount Feature

### 50m Contour Plot of proposed Indy Maru Seamount



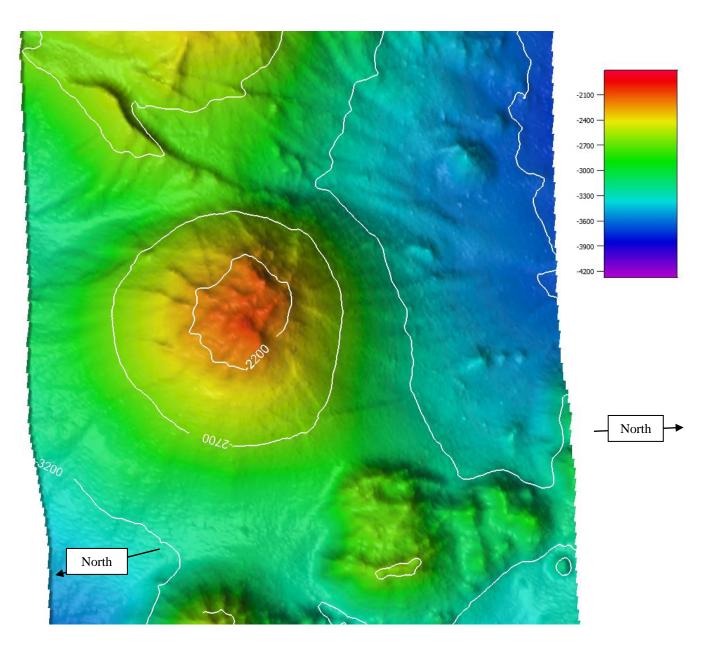
<u>Above</u>: Contour plot of proposed **Indy Maru Seamount** with 50m depth spacing between contour lines [Indy Maru Seamount Supporting Image 016.png]

## 100m Contour Plot of proposed Indy Maru Seamount



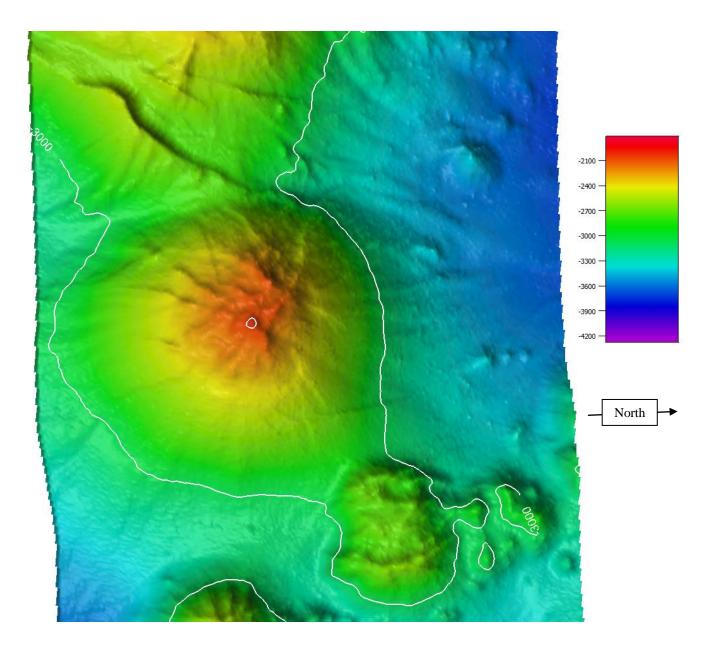
<u>Above</u>: Contour image of proposed Indy Maru Seamount with 100m depth spacing's between contours [Indy Maru Seamount Supporting Image 017.png]

## 500m Contour Plot of proposed Indy Maru Seamount



<u>Above</u>: Contour image of proposed Indy Maru Seamount with 500m depth spacing's between contours [Indy Maru Seamount Supporting Image 018.png]

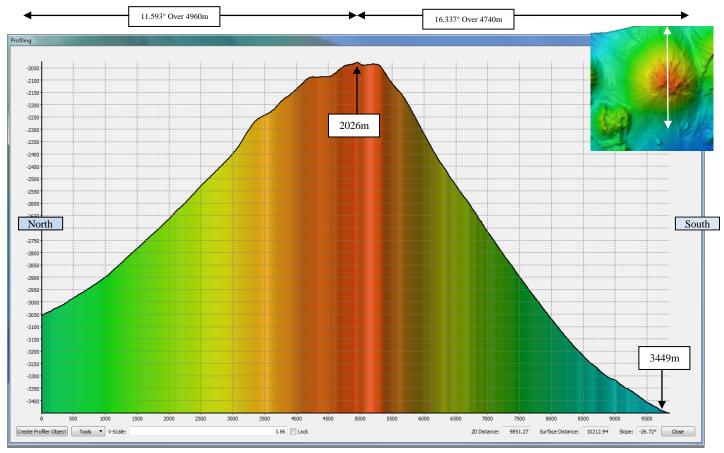
## 1000m Contour Plot of proposed Indy Maru Seamount



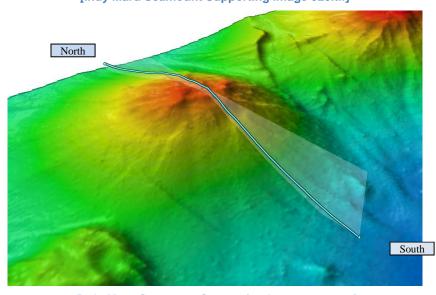
<u>Above</u>: Contour image of proposed Indy Maru Seamount with 1000m depth spacing's between contours [Indy Maru Seamount Supporting Image 019.png]

## Profiles of Proposed Indy Maru Seamount Feature

Profile 001 - North to South profile line across proposed Indy Maru Seamount feature



[Indy Maru Seamount Supporting Image 020.tif]

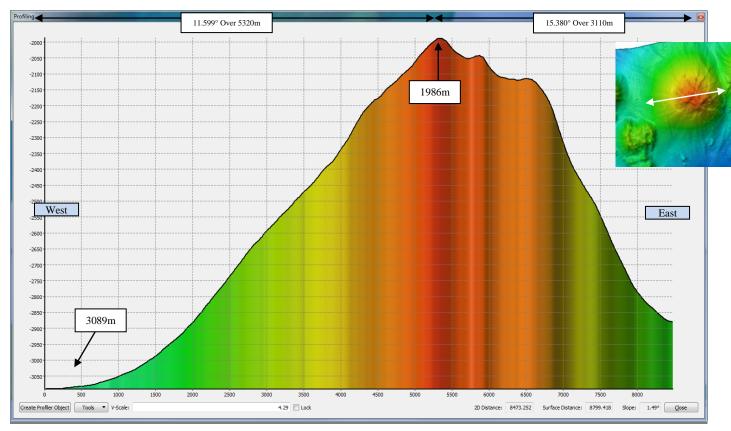


[Indy Maru Seamount Supporting Image 021.png]

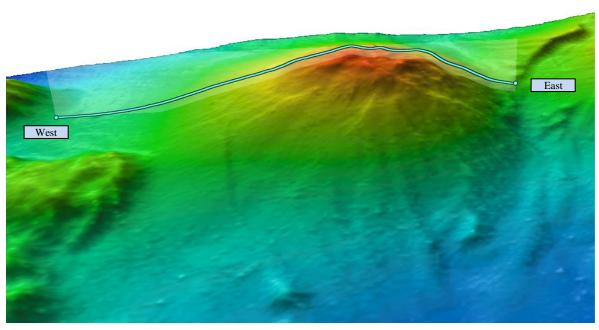
Table 6.0 – Profile line of proposed *Indy Maru Seamount* from North to South

	Profile Length	Profile Start	Profile End	Shallowest Point	Deepest Point of	Gradient of	Gradient (East) of	Total Relief of
				of Profile Line	Profile Line	Northern slope	Southern Slope	profile line
Profile 001 North to South	10212m	N 12 07.344 E 134 46.433	N 12 02.001 E 134 46.621	2026m N 12 04.654, E 134 46.528	-3449m N 12 02.001 E 134 46.621	11.593 over 4960m	16.337 over 4740m	1423m

## <u>Profile 002</u> – West to East profile line proposed *Indy Maru Seamount* feature



[Indy Maru Seamount Supporting Image 022.png]

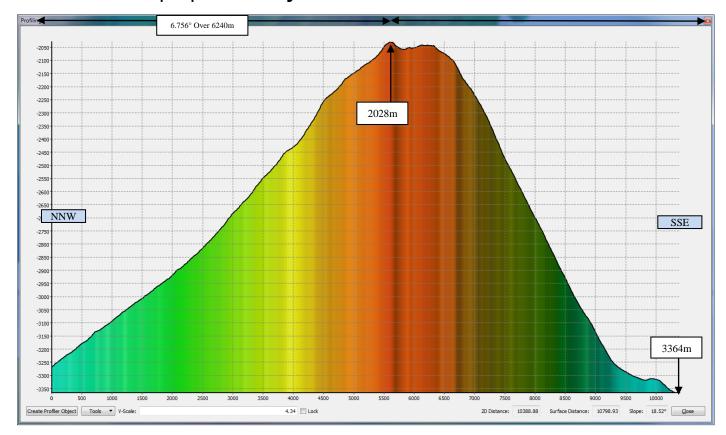


[Indy Maru Seamount Supporting Image 023.png]

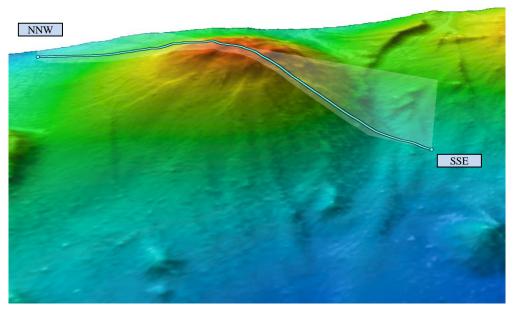
Table 7.0 – Profile line of proposed Indy Maru Seamount from West to East

	Profile Length	Profile Start	Profile End	Shallowest Point	Deepest Point of	Gradient of North	Gradient of	Total Relief of
				of Profile Line	Profile Line	slope	Southern Slope	profile line
Profile 002 West to East	8799m	N 12 04.219, E 134 43.491	N 12 04.959, E 134 48.102	1986m N 12 04.687, E 134 46.403	3089m N 12 04.219, E 134 43.491	11.599 over a distance of 5430m	14.198 over a distance of 2880m	1103m

# Profile 003 – North-North-West to South-South-East profile line across proposed *Indy Maru Seamount* Hill feature



[Indy Maru Seamount Supporting Image 024.png]

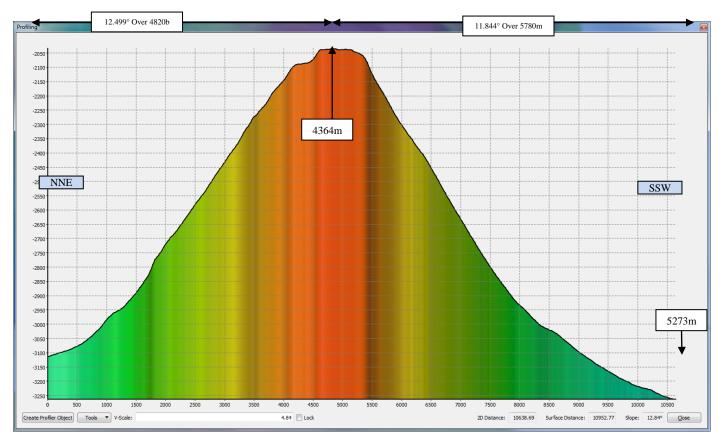


[Indy Maru Seamount Supporting Image 025.png]

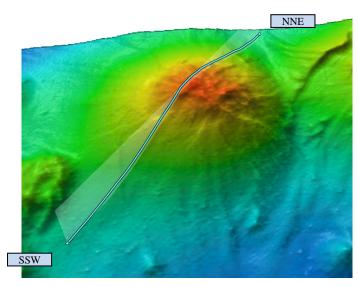
Table 8.0 – Profile line of proposed *Indy Maru Seamount* from North-North-West to South-South-East

	Profile Length	Profile Start	Profile End	Shallowest Point	Deepest Point of	Gradient of NNW	Gradient of SSE	Total Relief of
				of Profile Line	Profile Line	slope	Slope	profile line
Profile 003 NNW to SSE	10798m	N 12 06.026, E 134 43.551	N 12 03.379, E 134 48.608	2028m N 12 04.601, E 134 46.273	3364m N 12 03.379, E 134 48.608	12.359* over 5600m	15.172* over 4768m	1336m

# Profile 003 North-North-East to South-South-West profile line across proposed *Indy Maru Seamount* feature



[Indy Maru Seamount Supporting Image 026.png]

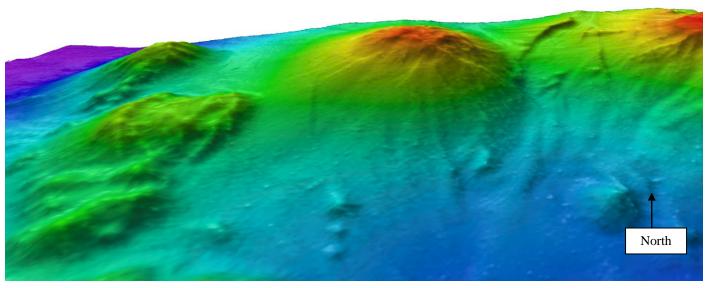


[Indy Maru Seamount Supporting Image 027.png]

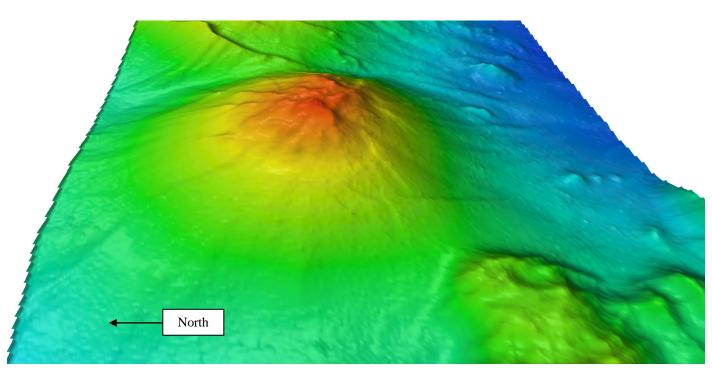
Table 9.0 - Profile line of proposed Indy Maru Seamount from North-North-East to South-South-West

	Profile Length	Profile Start	Profile End	Shallowest Point	Deepest Point of	Gradient of SSW	Gradient of NNE	Total Relief of
				of Profile Line	Profile Line	slope	Slope	profile line
Profile 004 NNE to SSW	10638m	N 12 07.226 E 134 47.304	N 12 01.870 E 134 45.115	2032m N 12 04.795, E 134 46.310	3261m N 12 01.870 E 134 45.115	11.468 over 3030m	8.136 over 6000m	1229m

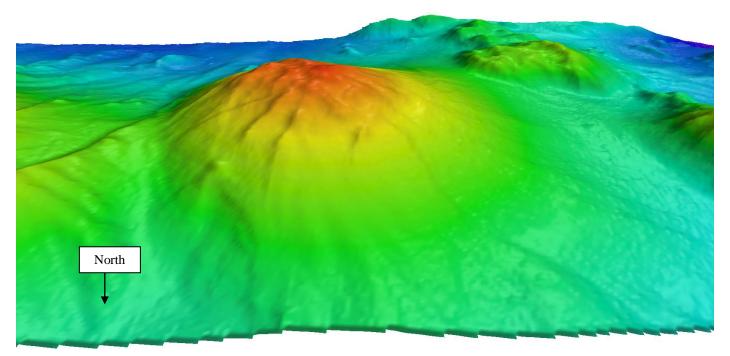
### 3D Renderings of Proposed Indy Maru Seamount Feature



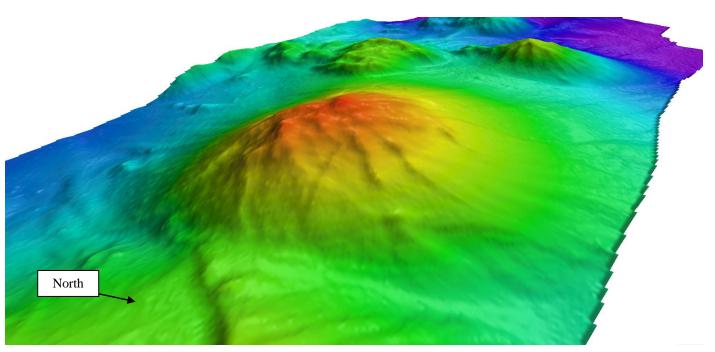
<u>Above</u>: Looking North at the *Indy Maru Seamount* feature *[Indy Maru Seamount Supporting Image 028.png]* 



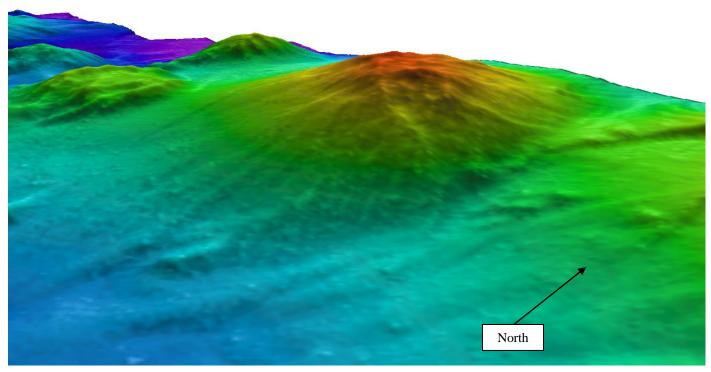
<u>Above</u>: Looking EAST from the WEST side of the *Indy Maru Seamount* feature //Indy Maru Seamount Supporting Image 029.png/



<u>Above</u>: Looking SOUTH from the NORTH side of the *Indy Maru Seamount* feature [Indy Maru Seamount Supporting Image 030.png]



<u>Above</u>: Looking SOUTH-SOUTH-WEST from NORTH-NORTH-EAST side of the proposed *Indy Maru Seamount* feature *[Indy Maru Seamount Supporting Image 031.png]* 



<u>Above</u>: Looking NORTH-NORTH-WEST from the SOUTH-SOUTH-EAST side of the proposed *Indy Maru Seamount* feature [Indy Maru Seamount Supporting Image 032.png]

Associated Features:		
	Shown Named on Map/Chart:	No
Chart/Map References:	Shown Unnamed on Map/Chart:	No
	Within Area of Map/Chart:	

Reason for Choice of Name (if a person, state how associated with the feature to be named):

The location where this survey was conducted is in the immediate vicinity of the last reported position of the USS *Indianapolis* that was torpedoed and sunk by the Japanese submarine I58 on the 30<sup>th</sup> July 1945. Nearly 300 went down with the ship and 900 faced exposure, dehydration, saltwater poisoning and shark attacks for the next 4 days until sighted by the crew of a passing aircraft. Of the 1197 crew onboard the USS Indianapolis only 317 survived. It represents the US Navy's worst disaster (Complete Vessel Information Below)

Initially I had hoped to submit the name *Indianapolis Seamount* to this feature. However, as per B6 I checked the existing records and found that the name Indianapolis Seamount has already been used.

Due to the proximity of this seamount to USS Indianapolis' last position I asked the Indianapolis Survivors Group (30<sup>th</sup> June 2016) for some input on what would be an appropriate name. The group supplied me with the following suggestions

- 1. Swayback Maru (ship's nickname)
- 2. Indy Maru (ship's nickname)
- 3. Legacy (in remembrance of the tragedy)
- 4. CA35 (hull number of USS Indianapolis)
- 5. 1197 (number of men aboard...1196 crew, 1 Navy passenger)
- 6. 880 or Eight-eighty (number of men lost-a-sea)

Of this list, *Indy Maru Seamount* was found appropriate and most descriptive.

Indy - abbreviated name of the ship

**Maru** - is often applied to words representing something beloved, and sailors applied this suffix to their ships

Section 4 of publication (specific terms) permits honoring of famous persons and in this instance I would like to extend famous name to the nickname of the vessel that was known to have sunk in the vicinity.

The choice of SEAMOUNT was based on the feature meeting the requirements detailed in Publication B-6 Edition 4.1.0, September 2013

SEAMOUNT A distinct generally equidimensional elevation greater than 1000m above the surrounding relief as measured from the deepest isobath that surrounds most of the feature.

### Full History of the USS Indianapolis

USS Indianapolis (CL/CA-35) was a Portland-class cruiser of the United States Navy. She was named for the city of Indianapolis, Indiana.

She was flagship for Admiral Raymond Spruance while he commanded the Fifth Fleet in battles across the Central Pacific. Her sinking led to the greatest single loss of life at sea in the history of the U.S. Navy. On 30 July 1945, after delivering parts for the first atomic bomb to the United States air base at Tinian, the ship was torpedoed by the Imperial Japanese Navy submarine I-58, sinking in 12 minutes. Of 1,196 crewmen aboard, approximately 300 went down with the ship.

The remaining 900 faced exposure, dehydration, saltwater poisoning, and shark attacks while floating with few lifeboats and almost no food or water. The Navy learned of the sinking when survivors were spotted four days later by the crew of a PV-1 Ventura on routine patrol. Only 317 survived.

#### Construction

Indianapolis was the second of two ships in the Portland class; the third class of "treaty cruisers" constructed by the United States Navy following the Washington Naval Treaty of 1922, following the two vessels of the Pensacola-class cruiser ordered in 1926 and the six of the Northampton-class cruiser ordered in 1927. Ordered for the U.S. Navy in fiscal year 1930. Indianapolis was originally designated as a light cruiser, because of her thin armor, and given the hull classification symbol CL-35. She was reclassified a heavy cruiser, because of her 8-inch guns, with the symbol CA-35 on 1 July 1931, in accordance with the London Naval Treaty.

As built, the Portland-class cruisers were designed for a standard displacement of 10,258 tonnes (10,096 long tons; 11,308 short tons), and a full-load displacement of 12,755 tonnes (12,554 long tons; 14,060 short tons). However, when completed, she did not reach this weight, displacing 9,950 tonnes (9,790 long tons; 10,970 short tons). The ship had two distinctive raked funnels, a tripod foremast, and a small tower and pole mast aft. In 1943, light tripods were added forward of the second funnel on each ship, and a prominent Naval director was installed aft.

The ship had four propeller shafts and four Parsons GT geared turbines and eight White-Forster boilers. The 107,000 shaft horsepower (80,000 kW) gave a design speed of 32.7 knots (60.6 km/h) She was designed for a range of 10,000 nautical miles (19,000 km; 12,000 mi) at 15 knots (28 km/h). She rolled badly until fitted with a bilge keel.

The cruiser had nine Mark 9 8"/55 caliber guns in three triple mounts, a superfiring pair fore and one aft. For anti-aircraft defense, she had eight 5"/25 caliber guns and two QF 3 pounder Hotchkiss guns. In 1945, she received 24 Bofors 40mm guns, arrayed in six guad

mounts. Both ships were upgraded with 19 Oerlikon 20 mm cannons. No torpedo tubes were fitted on her.

Portland-class originally had 1 inch (25 mm) armor for deck and side protection, but in construction[5] they were given belt armor between 5 inches (130 mm) (around the magazines) and 3.25 inches (83 mm) in thickness. Armor on the bulkheads was between 2 inches (51 mm) and 5.75 inches (146 mm); that on the deck was 2.5 inches (64 mm), the barbettes 1.5 inches (38 mm), the gunhouses 2.5 inches (64 mm), and the conning tower 1.25 inches (32 mm).

Portland-class cruisers were outfitted as fleet flagships, with space for an admiral and his staff. The class also had two aircraft catapult amidships. They could carry four aircraft. The total crew varied, with a regular designed complement of 807, a wartime complement of 952, which could increase to 1,229 when the cruiser was a fleet flagship.

Indianapolis was laid down by New York Shipbuilding Corporation on 31 March 1930. The hull and machinery were provided by the builder. Indianapolis was launched on 7 November 1931 and commissioned on 15 November 1932. She was the second ship named for Indianapolis, Indiana following the cargo ship of the same name in 1918. She was sponsored by Lucy Taggart, daughter of former Mayor of Indianapolis Thomas Taggart.

#### Interwar period

Under her first captain, John M. Smeallie, Indianapolis undertook her shakedown cruise through the Atlantic and into Guantánamo Bay until 23 February 1932. Indianapolis then transited the Panama Canal Zone for training off the Chilean coast. After overhaul at Philadelphia Navy Yard, she sailed to Maine to embark President Franklin Delano Roosevelt at Campobello Island in New Brunswick on 1 July 1933. Getting underway the same day, Indianapolis arrived at Annapolis, Maryland on 3 July. She hosted six members of the Cabinet along with Roosevelt during its stay there. After disembarking Roosevelt, she departed Annapolis on 4 July, and steamed for Philadelphia Navy Yard.

On 6 September, she embarked Secretary of the Navy Claude A. Swanson for an inspection of the Navy in the Pacific. Indianapolis toured the Canal Zone, Hawaii, and installations in San Pedro and San Diego. Swanson disembarked on 27 October. On 1 November 1933, she became flagship of Scouting Force 1, and maneuvered with the force off Long Beach, California. She departed on 9 April 1934 and arrived at New York City and embarked Roosevelt a second time, for a naval review. She returned to Long Beach on 9 November 1934 for more training with the Scouting Force. She remained flagship of Scouting Force 1 until 1941. On 18 November 1936, she embarked Roosevelt a third time at Charleston, South Carolina, and conducted a goodwill cruise to South America with him. She visited Rio de Janeiro, Brazil, Buenos Aires, Argentina, and Montevideo, Uruguay for state visits before returning to Charleston and disembarking Roosevelt's party on 15 December.

#### **World War II**

On 7 December 1941, Indianapolis was conducting a mock bombardment at Johnston Atoll during the Japanese attack on Pearl Harbor. Indianapolis was absorbed into Task Force 12 and searched for the Japanese carriers responsible for the attack, though the force did not locate them. She returned to Pearl Harbor on 13 December and joined Task Force 11.

#### **New Guinea campaign**

With the task force, she steamed to the South Pacific, to 350 mi (560 km) south of Rabaul, New Britain, escorting the aircraft carrier Lexington. Late in the afternoon of 20 February 1942, the American ships were attacked by 18 Japanese aircraft. Of these, 16 were shot down by aircraft from Lexington and the other two were destroyed by anti-aircraft fire from the ships.

On 10 March, the task force, reinforced by another force centered on the carrier Yorktown, attacked Lae and Salamaua, New Guinea, where the Japanese were marshaling amphibious forces. Attacking from the south through the Owen Stanley mountain range, the U.S. air forces surprised and inflicted heavy damage on Japanese warships and transports, losing few aircraft. Indianapolis returned to Mare Island shipyard for a refit before escorting a convoy to Australia.

#### Aleutian Islands campaign

Indianapolis then headed for the North Pacific to support American units in the Battle of the Aleutian Islands. On 7 August, Indianapolis and the task force attacked Kiska Island, a Japanese staging area. Although fog hindered observation, Indianapolis and other ships fired their main guns into the bay. Floatplanes from the cruisers reported Japanese ships sunk in the harbor and damage to shore installations. After 15 minutes, Japanese shore batteries returned fire before being destroyed by the ships' main guns. Japanese submarines approaching the force were depth-charged by American destroyers. Japanese seaplanes made an ineffective bombing attack. In spite of a lack of information on the Japanese forces, the operation was considered a success. U.S. forces later occupied Adak Island, providing a naval base further from the Dutch Harbor on Unalaska Island.

#### 1943 operations

In January 1943, Indianapolis supported a landing and occupation on Amchitka, part of an Allied island hopping strategy in the Aleutian Islands.

On the evening of 19 February, Indianapolis led two destroyers on a patrol southwest of Attu Island, searching for Japanese ships trying to reinforce Kiska and Attu. She intercepted a Japanese cargo ship, Akagane Maru 3100-tons laden with troops, munitions, and supplies. The cargo ship tried to reply to the radio challenge but was shelled by Indianapolis. Akagane Maru exploded and sank with all hands. Through mid-1943, Indianapolis remained near the Aleutian Islands escorting American convoys and providing shore bombardments supporting amphibious assaults. In May, the Allies captured Attu, then turned on Kiska, thought to be the final Japanese holdout in the Aleutians. Allied landings there began on 15 August but the Japanese had already abandoned the Aleutian Islands, unbeknownst to the Allies.

After refitting at Mare Island, Indianapolis moved to Hawaii as flagship of Vice Admiral Raymond A. Spruance, commanding the 5th Fleet. She sortied from Pearl Harbor on 10 November with the main body of the Southern Attack Force for Operation Galvanic, the invasion of the Gilbert Islands. On 19 November, Indianapolis bombarded Tarawa Atoll and next day pounded Makin (see Battle of Makin). The ship then returned to Tarawa as fire-support for the landings. Her guns shot down an enemy plane and shelled enemy strongpoints as landing parties fought Japanese defenders in the bloody and costly battle of Tarawa. She continued this role until the leveled island was secure three days later. The conquest of the Marshall Islands followed victory in the Gilberts. Indianapolis was again 5th Fleet flagship.

#### <u>1944</u>

The cruiser met other ships of her task force at Tarawa, and on D-Day minus 1, 31 January 1944, she was one of the cruisers that bombarded the islands of Kwajalein Atoll. The shelling continued on D-Day, with Indianapolis silencing two enemy shore batteries. Next day, she obliterated a blockhouse and other shore installations and supported advancing troops with a creeping barrage. The ship entered Kwajalein Lagoon on 4 February, and remained until resistance disappeared. (See Battle of Kwajalein.)

In March and April, Indianapolis, still flagship of the 5th Fleet, attacked the Western Carolines. Carrier planes at the Palau Islands on 30–31 March sank three destroyers, 17 freighters, five oilers and damaged 17 other ships. Airfields were bombed and surrounding

water mined. Yap and Ulithi were struck on the 31st and Woleai on 1 April. Japanese planes attacked but were driven off without damaging the American ships. Indianapolis shot down her second plane, a torpedo bomber, and the Japanese lost 160 planes, including 46 on the ground. These attacks prevented Japanese forces from the Carolines from interfering with the U.S. landings on New Guinea.

In June, the 5th Fleet was busy with the assault on the Mariana Islands. Raids on Saipan began with carrier-based planes on 11 June, followed by surface bombardment, in which Indianapolis had a major role, from 13 June. (See Battle of Saipan.) On D-Day, 15 June, Admiral Spruance heard that battleships, carriers, cruisers, and destroyers were headed south to relieve threatened garrisons in the Marianas. Since amphibious operations at Saipan had to be protected, Admiral Spruance could not withdraw too far. Consequently, a fast carrier force was sent to meet this threat while another force attacked Japanese air bases on Iwo Jima and Chichi Jima in the Bonin and Volcano Islands, bases for potential enemy air attacks.

A combined U.S. fleet fought the Japanese on 19 June in the Battle of the Philippine Sea. Japanese carrier planes, which hoped to use the airfields of Guam and Tinian to refuel and rearm, were met by carrier planes and the guns of the Allied escorting ships. That day, the U.S. Navy destroyed a reported 426 Japanese planes while losing 29. Indianapolis shot down one torpedo plane. This day of aerial combat became known as the "Marianas Turkey Shoot". With Japanese air opposition wiped out, the U.S. carrier planes sank Hiyō, two destroyers, and one tanker and damaged others. Two other carriers, Taihō and Shōkaku, were sunk by submarines.

Indianapolis returned to Saipan on 23 June to resume fire support and six days later moved to Tinian to attack shore installations (see Battle of Tinian). Meanwhile, Guam had been taken, and Indianapolis was the first ship to enter Apra Harbor since early in the war. The ship operated in the Marianas for the next few weeks, then moved to the Western Carolines where further landings were planned. From 12 to 29 September, she bombarded the Peleliu in the Palau Group, before and after the landings (see Battle of Peleliu). She then sailed to Manus Island in the Admiralty Islands where she operated for 10 days before returning to the Mare Island Naval Shipyard in California for refitting.

#### <u> 1945</u>

Overhauled, Indianapolis joined Vice Admiral Marc A. Mitscher's fast carrier task force on 14 February 1945. Two days later, the task force launched an attack on Tokyo to cover the landings on Iwo Jima, scheduled for 19 February. This was the first carrier attack on Japan since the Doolittle Raid. The mission was to destroy Japanese air facilities and other installations in the "Home Islands". The fleet achieved complete tactical surprise by approaching the Japanese coast under cover of bad weather. The attacks were pressed home for two days. The American Navy lost 49 carrier planes while claiming 499 enemy planes, a 10:1 kill/loss ratio. The task force also sank a carrier, nine coastal ships, a destroyer, two destroyer escorts, and a cargo ship. They destroyed hangars, shops, aircraft installations, factories, and other industrial targets.

Immediately after the strikes, the task force raced to Bonin to support the landings on Iwo Jima. The ship remained there until 1 March, protecting the invasion ships and bombarding targets in support of the landings. Indianapolis returned to Admiral Mitscher's task force in time to strike Tokyo again on 25 February and Hachijō off the southern coast of Honshū the following day. Although weather was extremely bad, the American force destroyed 158 planes and sank five small ships while pounding ground installations and destroying trains.

The next target for the U.S. forces was Okinawa in the Ryukyu Islands, which were in range of aircraft from the Japanese mainland. The fast carrier force was tasked with attacking airfields in southern Japan until they were incapable of launching effective airborne opposition to the impending invasion. The fast carrier force departed for Japan from Ulithi on 14 March. On 18 March, it launched an attack from a position 100 mi (160 km) southeast of the island of Kyūshū. The attack targeted airfields on Kyūshū as well as ships of the

Japanese fleet in the harbors of Kobe and Kure on southern Honshū. The Japanese located the American task force on 21 March, sending 48 planes to attack the ships. Twenty-four fighters from the task force intercepted and shot down all the Japanese aircraft.

Pre-invasion bombardment of Okinawa began on 24 March. Indianapolis spent 7 days pouring 8 in (200 mm) shells into the beach defenses. During this time, enemy aircraft repeatedly attacked the American ships. Indianapolis shot down six planes and damaged two others. On 31 March, the ship's lookouts spotted a Japanese Nakajima Ki-43 fighter as it emerged from the morning twilight and roared at the bridge in a vertical dive. The ship's 20 mm guns opened fire, but within 15 seconds, the plane was over the ship. Tracers converged on it, causing it to swerve, but the enemy pilot managed to release his bomb from a height of 25 ft (7.6 m), crashing his plane into the sea near the port stern. The bomb plummeted through the deck, into the crew's mess hall, down through the berthing compartment, and through the fuel tanks before crashing through the keel and exploding in the water underneath. The concussion blew two gaping holes in the keel which flooded nearby compartments, killing nine crewmen. The ship's bulkheads prevented any progressive flooding. The Indianapolis, settling slightly by the stern and listing to port, steamed to a salvage ship for emergency repairs. Here, inspection revealed that her propeller shafts were damaged, her fuel tanks ruptured, and her water-distilling equipment ruined. But the Indianapolis commenced the long trip across the Pacific to Mare Island Navy Yard for repairs under her own power.

#### Secret mission

After major repairs and an overhaul, Indianapolis received orders to proceed to Tinian island, carrying parts and the enriched uranium (about half of the world's supply of Uranium-235 at the time) for the atomic bomb Little Boy, which would later be dropped on Hiroshima. Indianapolis departed San Francisco on 16 July 1945, within hours of the Trinity test. Arriving at Pearl Harbor on 19 July, she raced on unaccompanied, delivering the atomic weapon components to Tinian on 26 July.

Indianapolis was then sent to Guam where a number of the crew who had completed their tours of duty were replaced by other sailors. Leaving Guam on 28 July, she began sailing toward Leyte where her crew was to receive training before continuing on to Okinawa to join Vice Admiral Jesse B. Oldendorf's Task Force 95.

#### **Sinking**

At 00:14 on 30 July, she was struck on her starboard bow by two Type 95 torpedoes from the Japanese submarine I-58, under the command of Mochitsura Hashimoto. The explosions caused massive damage. The Indianapolis took on a heavy list, and settled by the bow. Twelve minutes later, she rolled completely over, then her stern rose into the air, and she plunged down. Some 300 of the 1,196 crewmen went down with the ship. With few lifeboats and many without lifejackets, the remainder of the crew were set adrift.

#### Rescue

Navy command had no knowledge of the ship's sinking until survivors were spotted three and a half days later. At 10:25 on 2 August, a PV-1 Ventura from VPB-152 flown by Lieutenant Wilbur "Chuck" Gwinn and copilot Lieutenant Warren Colwell spotted the men adrift while on a routine patrol flight. Of the 880 who had survived the sinking, only 321 men came out of the water alive; 317 ultimately survived. They suffered from lack of food and water (leading to dehydration and hypernatremia; some found rations, such as Spam and crackers, amongst the debris), exposure to the elements (leading to hypothermia and severe desquamation), and shark attacks, while some killed themselves or other survivors in various states of delirium and hallucinations.

"Ocean of Fear", a 2007 episode of the Discovery Channel TV documentary series Shark Week, states that the Indianapolis sinking resulted in the most shark attacks on humans in history, and attributes the attacks to the oceanic whitetip shark species. Tiger sharks might

have also killed some sailors. The same show attributed most of the deaths on Indianapolis to exposure, salt poisoning and thirst, with the dead being dragged off by sharks.

Gwinn immediately dropped a life raft and a radio transmitter. All air and surface units capable of rescue operations were dispatched to the scene at once. A PBY Catalina seaplane under the command of Lieutenant R. Adrian Marks was dispatched to lend assistance and report. En route to the scene, Marks overflew USS Cecil J. Doyle and alerted her captain, future U.S. Secretary of the Navy W. Graham Claytor, Jr., of the emergency. On his own authority, Claytor decided to divert to the scene.

Arriving hours ahead of Doyle, Marks' crew began dropping rubber rafts and supplies. Having seen men being attacked by sharks, Marks disobeyed standing orders and landed on the open sea. He began taxiing to pick up the stragglers and lone swimmers who were at the greatest risk of shark attack. Learning the men were the crew of Indianapolis, he radioed the news, requesting immediate assistance. Doyle responded while en route. When Marks' plane was full, survivors were tied to the wings with parachute cord, damaging the wings so that the plane would never fly again and had to be sunk. Marks and his crew rescued 56 men that day.

The Doyle was the first vessel on the scene. Homing in on Marks's Catalina in total darkness, Doyle halted to avoid killing or further injuring survivors, and began taking Marks' survivors aboard. Disregarding the safety of his own vessel, Captain Claytor pointed his largest searchlight into the night sky to serve as a beacon for other rescue vessels. This beacon was the first indication to most survivors that rescuers had arrived.

The destroyers Helm, Madison, and Ralph Talbot were ordered to the rescue scene from Ulithi, along with destroyer escorts Dufilho, Bassett, and Ringness of the Philippine Sea Frontier. They continued their search for survivors until 8 August.

Two of the rescued survivors, Robert Lee Shipman and Frederick Harrison, died in August 1945.

#### Navy failure to learn of the sinking

The Headquarters of Commander Marianas on Guam and of the Commander Philippine Sea Frontier on Leyte kept Operations plotting boards on which were plotted the positions of all vessels with which the headquarters were concerned. However, for ships as large as the Indianapolis, it was assumed that they would reach their destinations on time, unless reported otherwise. Therefore, their positions were based on predictions, and not on reports. On 31 July, when she should have arrived at Leyte, Indianapolis was removed from the board in the headquarters of Commander Marianas. She was also recorded as having arrived at Leyte by the headquarters of Commander Philippine Sea Frontier. Lieutenant Stuart B. Gibson, the Operations Officer under the Port Director, Tacloban, was the officer responsible for tracking the movements of Indianapolis. The vessel's failure to arrive on schedule was known at once to Lieutenant Gibson, who failed to investigate the matter and made no immediate report of the fact to his superiors. Gibson received a letter of reprimand in connection with the incident. The acting commander and operations officer of the Philippine Sea Frontier also received reprimands, while Gibson's immediate superior received a letter of admonition.

In the first official statement, the Navy said that distress calls "were keyed by radio operators and possibly were actually transmitted" but that "no evidence has been developed that any distress message from the ship was received by any ship, aircraft or shore station." Declassified records later showed that three stations received the signals; however, none acted upon the call. One commander was drunk, another had ordered his men not to disturb him and a third thought it was a Japanese trap.

Immediately prior to the attack, the seas had been moderate, the visibility fluctuating but poor in general, and Indianapolis had been steaming at 17 kn (20 mph; 31 km/h). When the ship did not reach Leyte on the 31st, as scheduled, no report was made that she was

overdue. This omission was due to a misunderstanding of the Movement Report System.

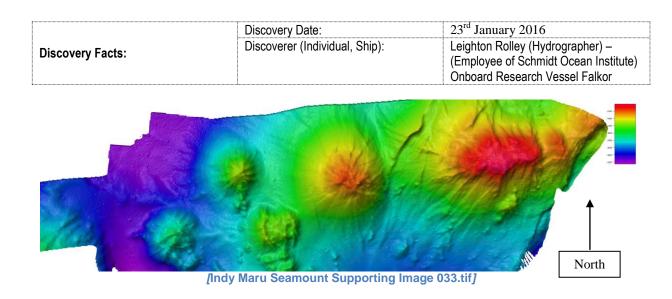
#### **Court-martial of Captain McVay**

Captain Charles B. McVay III, who had commanded Indianapolis since November 1944, survived the sinking and was among those rescued days later. In November 1945, he was court-martialed and convicted of "hazarding his ship by failing to zigzag". Several things about the court-martial were controversial. There was evidence that the Navy itself had placed the ship in harm's way, in that McVay's orders were to "zigzag at his discretion, weather permitting". Further, Mochitsura Hashimoto, commander of I-58, testified that zigzagging would have made no difference. Fleet Admiral Chester Nimitz remitted McVay's sentence and restored him to active duty. McVay retired in 1949 as a rear admiral.

While many of Indianapolis's survivors said McVay was not to blame for the sinking, the families of some of the men who died thought otherwise: "Merry Christmas! Our family's holiday would be a lot merrier if you hadn't killed my son", read one piece of mail. The guilt that was placed on his shoulders mounted until he committed suicide in 1968, using his Navy-issue revolver. McVay was discovered on his front lawn with a toy sailor in one hand. He was 70 years old.

#### McVay's record cleared

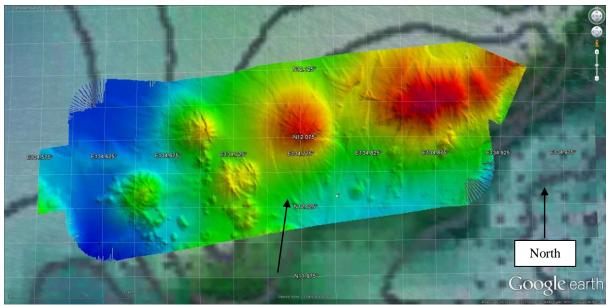
In 1996, sixth-grade student Hunter Scott began his research on the sinking of Indianapolis, which led to a United States Congressional investigation. In October 2000, the United States Congress passed a resolution that Captain McVay's record should state that "he is exonerated for the loss of Indianapolis." President Bill Clinton signed the resolution. The resolution noted that, although several hundred ships of the U.S. Navy were lost in combat in World War II, McVay was the only captain to be court-martialed for the sinking of his ship. In July 2001, the Secretary of the Navy ordered McVay's record cleared of all wrongdoing.



The discovery of the proposed **Indy Maru Seamount** occurred during RV *Falkor* transit FK160623 that left Nah Trang, Vietnam on the 23<sup>rd</sup> June 2016 and arrived in Apra, Guam on the 1<sup>st</sup> July 2016.

As part of the transit multibeam data was acquired enroute while operating international waters. This is standard procedure for our research vessel to help fill in some of the many blanks in our understanding of the oceans.

Lead Marine Tehnician Leighton Rolley proposed a short diversion of our route to conduct a survey over this location as it represented a gap in the existing dataset while at the same time had historic significance.



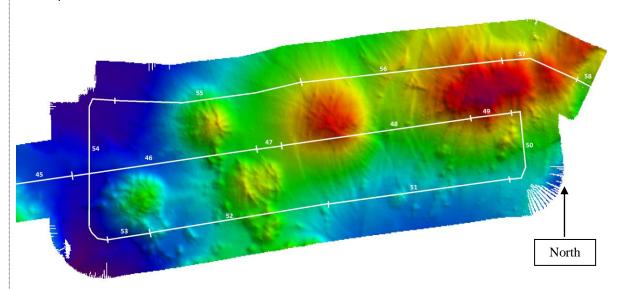
[Indy Maru Seamount Supporting Image 034.jpg]

**Above**: Survey area with US Navy's last reported position of USS Indianapolis indicated by the arrow.

#### **Survey Particulars**

Distance Travelled: 109414m Distance Travelled: 109.414km Distance Travelled: 59.079NM Number of Positions: 32794 Number of Pings:6434

Number of Soundings: 2,779,488 Area Coverage: 550,903,049 m2 Area Coverage: 550.9 km2 Max Depth:4749m



<u>Above</u>: Overview of the survey area with multibeam line file numbers shown. <u>[Indy Maru Seamount Supporting Image 035.png]</u>

Line	First Pos Lat	First Pos Ion	Last pos Lat	Last Pos Lon	Start	End	Avg Spd	Soundings
045	N12°02'00.98"	E134°31'29.33"	N12°02'56.41"	E134°37'50.59"	8:36:36	9:36:34	6.3	196992
046	N12°02'56.43"	E134°37'50.69"	N12°03'49.14"	E134°43'56.47"	9:36:35	10:36:32	6.05	226800
047	N12°03'49.16"	E134°43'56.57"	N12°03'56.07"	E134°44'51.90"	10:36:33	10:45:54	5.85	65664
048	N12°03'56.09"	E134°44'52.00"	N12°04'50.44"	E134°51'08.83"	10:45:55	11:45:53	6.22	452304
049	N12°04'50.45"	E134°51'08.94"	N12°05'02.30"	E134°52'35.47"	11:45:54	12:00:18	5.95	113184
050	N12°05'02.32"	E134°52'35.57"	N12°02'48.33"	E134°52'38.99"	12:00:19	12:22:44	7.74	142128
052	N12°02'48.33"	E134°52'38.87"	N12°01'59.49"	E134°46'23.01"	12:22:45	13:22:40	6.21	205200
053	N12°01'59.47"	E134°46'22.91"	N12°00'59.77"	E134°40'13.96"	13:22:41	14:22:44	6.11	266112
054	N12°00'59.76"	E134°40'13.85"	N12°00'46.39"	E134°38'46.33"	14:22:45	14:36:36	6.27	44496
055	N12°00'46.38"	E134°38'46.22"	N12°05'27.83"	E134°39'06.17"	14:36:37	15:20:20	7.92	142560
056	N12°05'27.83"	E134°39'06.28"	N12°06'04.63"	E134°45'33.70"	15:20:21	16:20:16	6.41	254448
057	N12°06'04.64"	E134°45'33.81"	N12°06'47.68"	E134°52'18.12"	16:20:17	17:20:18	6.64	478656

	Date of Survey:	28 <sup>th</sup> June 2016
Supporting	Survey Ship:	Vessel: R/V Falkor
Survey Data, including		<b>Call Sign</b> : ZCYL5 <b>IMO</b> : 7928677
Track		<b>MMSI</b> : 319005600
Controls:		Home Port: George Town, Gran
		Cayman
		Class: GL
		Operator: Schmidt Ocean Institute

Sounding Equipment:	Kongsberg EM302 Multibeam 1x0.5
3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	nongeong = more managam more
	Serial No: 105
	Survey ID: FK160115
	SIS Version: 4.1.3
	Build: 14 DB Version: 24.0
	DB version: 24.0
	Post Processing:
	Caris Hips & Sips 8.1.6
	Build 2014 02 20_22 35 19
Type of Navigation:	DGPS was utilized for the entire
	duration of the survey.
	_ ,, ,
	Seapath 320 Primary Science
	S/W Version 1.02.01 MRU 5 S/N 7834
	WINU 3 3/11 7034
	POSMV – Secondary Science GPS
	Fully Surveyed: 08/2014
	DGPS Corrections
	Model: C NAV 3050
	S/N: 12380
	SW Version: 3.00 Build 165
	Alignment Survey: 08/2014
	NTP
	S350 Timing Sync Server
	3 ,
Estimated Horizontal Accuracy (nm):	The vessel average survey speed
	during the survey line across the
	proposed feature was <b>6kts</b> Average
	time between pings during this survey line was <b>9.5</b> seconds giving a
	horizontal resolution of roughly <b>20m</b>
	Tionzontai resolution oi rougiliy <b>2011</b>
	HDOP (Horizontal Dilution of Precision
	) throughout the survey of proposed
	Indy Maru Seamount was 0.8-0.9
	During the survey XBT's were deployed
	on 6 hour basis unless a sufficient
	change was detected in the S/Speed value using a hull mounted Valeport
	SVP at the transducer face
	OVI ALLIO HANGUOON IAOG
Our Land Our diam	2.0
Survey Track Spacing:	3 Survey lines spaced ~3700m appart

	Multibeam Data Processed and Display with:						
	Caris HIPS and SIPS 9.0.17 Build: 2015 08 10 08 25 46						
	Flederamus 3D renderings produced using						
	Flederamus Version 7.4.4b 64 Bit Edition Build 120, jul 15 2015 05:52:14 EPSG Database Version 7.9						
Futher:							
	ation was conducted prior Paul Johnson, University	to this expedition on the 25 <sup>th</sup> September 2 y of New Hampshire	2015 off Honolulu, Hawaii with third party				
		Name(s):	Leighton Rolley 156 St. Fagan's Road Fairwater, Cardiff Wales, UK CF5 3EU  Tel: UK (+44) 07886784890 Landline: UK (+44) 2920560389				
		Date:	28 <sup>th</sup> June 2016				
		E mail:	Leighton.r@soi team.org				
Proposer(s):		Organization and Address:	Schmidt Ocean Institute 555 Bryant Street, #374 Palo Alto, CA 94301 Phone: (415) 975 4080 Fax: (415) 975 4081				
		Concurrer (name, e mail, organization and address):	Veit Huehnerbach  Veit.h@soi-team.org C/o Schmidt Ocean Institute 555 Bryant Street, #374 Palo Alto, CA 94301 Phone: (415) 975 4080 Fax: (415) 975 4081  Captain R/V Falkor Philip Gunther C/O Schmidt Ocean Institute 555 Bryant Street, #374 Palo Alto, CA 94301 Phone: (415) 975 4080 Fax: (415) 975 4081				
Remarks:							

NOTE: This form should be forwarded, when completed:

a) If the undersea feature is located <u>inside the external limit</u> of the territorial sea: to your "National Authority for Approval of Undersea Feature Names" (see page 2 9) or, if this does not exist or is not known, either to the IHB or to the IOC (see addresses below); b) If at least 50 % of the undersea feature is located <u>outside the external limits</u> of the territorial sea : to the IHB or to the IOC, at the following addresses :

International Hydrographic Bureau (IHB)
4, Quai Antoine 1er
B.P. 445
MC 98011 MONACO CEDEX
Principality of MONACO
Fax: +377 93 10 81 40
E mail: info@ihb.mc
Intergovernmental Oceanographic Commission (IOC)
UNESCO
Place de Fontenoy
75700 PARIS
France
Fax: +331 45 68 58 12
E mail: info@unesco.org

Supporting Documentation	