**國立中山大學 NSYSU**

**「新海研3號研究船」出海作業申請單**

**Cruise Application Form for R/V NOR3**

□國科會計畫 NSTC Project □海上實習 Oceanographic Cruise Practice

□建教委託計畫 Government or Industry Commissioned Project □其他 Other

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| 航次編號Cruise No. |  | 申請單位Affiliation (PI) |  | 申請日期Apply date |   |
| 計畫主持人PI |  | 計畫名稱Project title |  |
| 領隊Cruise leader |  | 服務單位/職稱Affiliation/Title(Cruise leader) |  | 電話/手機Phone / Mobile phone |
|  |
| 電子郵件Email |  |
| 國科會計畫人員 (Participants sponsored by NSTC projects)：  |
| 非國科會計畫人員 (Participants not sponsored by NSTC projects)： |
| 學生 (Students)： |
| 備用人員(國科會/非國科會計畫人員/學生) (Step-in personnel)： |
| 新海研3號探測人員 (Surveyors)：廖允強、林澔暐、徐建成 (filled by the R/V NOR3 Office) |
| 探測海域 (Survey area)：  □Yes □No 超過臺灣24海浬 (beyond 24 NM from Taiwan) |
| 探測作業時間 (Survey time)：□24小時輪班 (24 hours)  □06:00-24:00 (the shifts will be organized by the Senior Surveyor) |
| 自備探測儀器 (Own instruments)：  |
| 預定作業期間Cruise time  | From YYYY 年 MM 月 DD日 hh 時 離高雄港 (Leaving Kaohsiung Port)To YYYY 年 MM 月 DD日 hh 時 靠高雄港 (Arriving at Kaohsiung Port)共計 (For a total of) \_\_\_\_\_日 (days)As a general rule, the departure time should not be earlier than 8 AM.Unless due to force majeure events, the arrival time should not be later than 6 PM. |
| 當(返航)日備晚餐Dinner upon arrival | □Yes □No | 特殊需求Special request | 素 (Vegan), 豬 (no pork), 牛(no beef) |
| **Application Instructions****Before the cruise**1. PI or the cruise leader should submit the application form to the R/V NOR3 Office at least 14 days before departure.
2. When combining commissioned projects with others, the allocated ship time should be clearly stated.
3. Eligible cruise leaders for NSTC-funded cruises are assistant professors, research vessel technicians, or individuals holding equivalent or higher positions.
4. The maximum number of boarding personnel for one-day round trips and overnight voyages is 9.
5. Due to customs clearance scheduling, personnel changes are not accepted within 5 working days before departure (for example, if departing on a Friday, changes are not accepted starting from the previous Friday). It is recommended to have step-in personnel for flexible arrangements.
6. It is mandatory to use the C-Planner, a tool provided by the ODB, for cruise planning:

http://odbwms.oc.ntu.edu.tw/odbintl/rasters/cplan/1. Students joining the cruise for the course of “Oceanographic Cruise Practice” must complete the "Checklist of Safety Instructions for Water Activity, College of Marine Science, NSYSU" and have it endorsed by the department chairman before submitting it to the R/V NOR3 Office.

**During the cruise**1. Scientists working on the aft deck must wear helmets, life jackets, and closed-toe work shoes at all time in accordance with the safety regulations of the research vessel.
2. If the survey area encounters conditions such as wind force reaching level 7, large waves (with wave heights of 3 m or higher), total swaying exceeding 45°, or other special circumstances, the decision to proceed with operations will be determined through discussion between the Master and the Senior Surveyor.
3. Changes of navigation plans or survey operations:
	1. If the changes deviate from the content of the cruise application, including adjustments of station sequence, adjustments to survey areas, deployment of the work boat, diving, or any high-risk operations, the Master must complete the Onboard Risk Assessment Form (OR3C-07-11), which requires signatures from both the Master and the cruise leader.
	2. If the changes involve adjustments to station sequence and survey area, the cruise leader must provide reasons for the changes, the revised cruise plan, and the adjusted station coordinates to the Master as attachments for risk assessment.
	3. The Onboard Risk Assessment Form and attachments must be submitted to the R/V NOR3 Office for record-keeping before execution.
	4. In cases where sensitive/overlapping areas are not involved and the risk is low or manageable, the Master makes the final decision on whether to proceed.
	5. If changes involve sensitive/overlapping areas, besides the notification process to the R/V NOR3 Office, the documents mentioned in (2) must be submitted 24 hours in advance to the Master, who shall initiate the communication process outlined in the "Response Protocol for Operation Safety of Research Vessels," notifying the NSTC and forwarding to the Ocean Affairs Council for record-keeping.

**□ I have carefully read the instructions and agree to abide by the regulations.****Contact information**1. R/V NOR3 Office: Tel: (07)5255007, Email: admin@nsysunor3.com
2. R/V NOR3: Tel: 0932-747-541, shipboard communication: VHF-16, SSB frequency: 2182; satellite phone: 009870-773-504-159.
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| **計畫主持人****(PI)** | **船務****(R/V NOR3 Superintendent)** | **研究船管委會總幹事****(Manager, R/V NOR3 Management Committee)** |
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**國立中山大學 「新海研3號」出海作業申請單（附件）**

**NSYSU, Application Form for R/V NOR3 (Attachment)**

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| 預定探測航程作業大綱及航線規劃(包含各測站的預定抵達時間、探測作業內容、作業所需時數以及離開測站時間等，請詳述於本頁或是另頁書寫。**務必要**使用ODB的出海規劃工具cplan <http://odbwms.oc.ntu.edu.tw/odbintl/rasters/cplan/>）Please outline the survey operations and detailed navigation plan (including the expected arrival time at each station, details of the survey operation, the required duration for each operation, the departure time from each station, etc.) on this page or on separate pages. It is essential to use the C-Planner, a tool provided by ODB, available at <http://odbwms.oc.ntu.edu.tw/odbintl/rasters/cplan/>□本航次無敏感海域探測或採樣的點位。There is no survey or sampling station in sensitive areas.□本航次含敏感海域探測或採樣的點位，已通過海委會跨部會協商會議同意執行：There are survey or sampling stations in sensitive areas. The stations have been approved by the inter-agency consultation meeting at the Ocean Affairs Council. 預估進入敏感海域的位置 經度 ° E，緯度 ° N ，時間 。Expect to enter the sensitive area at ° ‘E, ° ‘N, at (time). 預估離開敏感海域的位置 經度 ° E，緯度 ° N ，時間 。Expect to exit the sensitive area at ° ‘E, ° ‘N, at (time).□本航次需使用動力小艇，並已註明作業站點與時間 (現場佈放須經船長同意)。For this voyage, a motorized dinghy must be used, and the operation sites and times have been specified (deployment on-site must be approved by the captain).□本航次含潛水作業，並已註明作業站點與時間。This voyage includes diving operations, and the operation sites and times have been specified. |
| 測站位置（含站位經、緯度及圖）： Location of the stations (coordinates and maps):  |
| 本航次需隨船作業之須吊掛大型探測裝備器材清單及預計到達時間（□是□否 安排吊掛作業）：範例: 鐵籠x 2 大型機械x 1 預計109年2月30日 下午五點到船邊List of large survey equipment to be hoisted on board for this cruise, and the expected arrival time (crane operation □is □is not needed):Example: Cages x 2, Large equipment x 1, expected arrival time at pier: 5 pm, Feb 30, 2020 |

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| **國立中山大學 新海研3號隨船儀器設備申請表****Application Form for the Shipboard Instruments, R/V NOR3** |
| 申請單位Affiliation |  | 申請人Applicant |  |
| 電話/分機Phone/Ext. |  | 電子郵件Email |  |
| 計畫名稱Project Title |  |
| 計畫類型Project Type | □國科會計劃 NSTC Project □學生實習Oceanographic Cruise Practice □建教委託Government or Industry Commissioned Project□其它Other |
| 作業性質Operation Type | □海洋物理Phys. Oceanography □海洋化學 Marine Chemistry□海洋生物Marine Biology □海洋地球科學Marine Geology□其它 Other |
| 預計作業期間Expected Op. time | From YYYY 年 MM 月 DD日 hh 時 離高雄港 (Leaving KH Port)To YYYY 年 MM 月 DD日 hh 時 靠高雄港 (Arriving at KH Port)共計 (For a total of) \_\_\_\_\_日 (days) |
| 隨船作業標準設備 Standard Shipboard Instruments |
| * CTD (SBE 911 plus)
* sbADCP (RDI ADCP 75KHz)
* Single beam Echosounder (EA640, 12/38/200 kHz)
* Multibeam Echosounder (EM712)
* Weather station (air T, wind direction & speed)
* Motion sensor (Seapath 380/MRU-5, GPS/GLONASS)
* DGPS
* USBL (HiPAP 502)
 | * Large Rosette sampler
* 10 L Niskin bottles (24x)
* Milli-Q machine
* Deck PAR (Biospherical SPAR)
* SCTD (SBE 21)
* Surface transmissometer (C-star)
* Surface fluorometer (WETstar)
* Shipek grab
* 2m Gravity-Corer \_\_\_\_\_\_\_core liners
 |
| 需　申　請　設　備 Instruments Needing Application |
| □LISST Holo (batteries covered by applicant)□LISST-100X (batteries covered by applicant)□LISST-200X (batteries covered by applicant)□12L Go-Flo bottles \_\_\_\_\_\_x (max. 24x) **(default sampling bottles: 24x of 10-L Niskin bottles)** | □Seapoint turbidity meter□Self-recording CTD (incl. fluorometer)□XBT (XBT probe covered by the applicant; contact the MIC, 07-5252000#5008) |
| 特殊設備(\*申請技術員協助或確認申請人會使用) Special Instruments (\*require support from the technician or experienced users) |
| □MicroRider-1000\*□~~VMP-250 \*~~(under repair)□L-ADCP\*□McLane Pump WTS-LV\* (batteries covered by applicant)□60 cm Multicorer MC600\*□Box corer\* | □Sediment microsensor system\*□4m Gravity corer\* \_\_\_\_\_\_\_core liner□6m Gravity corer\* \_\_\_\_\_\_\_core liner**(4, 6m GC shipboard operation time: 8:00-20:00)**□SBP (Edgetech 3300) **(causing interference with other shipboard acoustic instruments)** |

Note:

1. Please submit application for instrument or personnel support at least 14 days prior to departure to facilitate the scheduling of technicians and testing of equipment.
2. The insurance coverage of R/V NOR3 does not include instruments deployed without tethering. Applicants are responsible for any associated risks.
3. The NSTC-funded cruises have a maximum of 10 free liners for the gravity corer. Applicants of non-NSTC-funded cruises are required to cover the costs of liners.
4. After using the Go-Flo bottles, users must disassemble the sampling mechanism and rinse them with fresh water (not just rinsing the interior of the bottles) on board or at port before the end of the cruise. This is to prevent salt buildup and erosion within the sampling mechanism. Failure to comply with this regulation will result in rejection of the request to use Go-Flo bottles.

技術員簽章 貴儀主持人簽章

Signature by the technician Signature by the PI of the MIC project

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