

Science in IODP is driven by community-generated proposals targeting the research themes outlined in the program's overall science plan and utilizing multiple drilling platforms. IODP proposal submission is a process designed to transform exciting science into successful expeditions.

Proposal Submission Guidelines

IODP Science Evaluation Panel



Approved by the *JOIDES Resolution* Facility Board
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IODP Science Evaluation Panel (SEP): Proposal Submission Guidelines

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Chapter 1 Introduction

Science in the International Ocean Discovery Program (IODP) is driven by community-generated proposals targeting the four research themes outlined in the program's overall Science Plan, *Illuminating Earth's Past, Present, and Future* (www.iodp.org/iodp-science-plan). The program provides multiple drilling platforms that are very expensive to operate (www.iodp.org/expeditions/science-operators), whereby a 2-month expedition using the riserless platform *JOIDES Resolution* costs US\$14 million or more, expeditions with the riser platform *Chikyu* can cost hundreds of millions of dollars, and *Mission Specific Platform (MSP)* expeditions can range from US\$ ~8 to >15 million. Because the level of investment goes beyond an individual researcher or a single research group, the IODP proposal structure, and IODP's review and planning processes, are comprehensive and they differ from those of other grant applications. Because of these differences the IODP processes are iterative and open to communication, involving the science proponents, the IODP Advisory Panels, and drilling platform's Science Operator. The processes are designed to transform exciting science into successful expeditions. As technical planning, implementation, and financial responsibilities are managed within the program, an IODP proposal has no budget section. However, the proposal review and implementation of successful proposals are kept separate, except in a few cases for drilling with the *Chikyu* and for portions of the Land-2-Sea proposals.

The IODP receives drilling proposals from the scientific community and evaluates the proposals through two advisory panels and through external peer review. This document specifies requirements for submitting IODP proposals, outlines the review process, and describes the (up to) five-step proposal process. In most cases, it is recommended to submit a preliminary proposal first. Upon positive review, which can occur upon first submission or after one round of revision and resubmission, by the Science Evaluation Panel (SEP), the proponent team is invited to submit a full proposal. After a round of reviewing, the SEP can request (but only once) a revision to the full proposal or send the proposal for external peer review. Upon successful peer review, the SEP rates the proposal (fair, good, excellent) and forwards it to one of the drilling platform Facility

Boards for scheduling. These proposals are considered by the Environmental Protection and Safety Panel (EPSP). In order to expedite this process, EPSP may consider proposals from the SEP that are about to be forwarded to a Facility Board. When with the Facility Boards, all forwarded proposals are considered for implementation and expedition scheduling. At each Facility Board decisions may be reached on the basis of their regional planning, the relation of a proposal to the IODP Science Plan, funding and ship time availability, safety, and other logistical constraints.

Proposals are submitted to the IODP Science Support Office (SSO) (www.iodp.org) to two deadlines: **1 April** or **1 October** (23:59 GMT). Note that the deadlines for submitting site characterization data are nominally **one month after** the IODP proposal submission deadlines. If the deadline falls on a Saturday or a Sunday, it may move to the following Monday.

Proposals must be submitted through the online Proposal Database System (PDB) accessible at <http://proposals.iodp.org>. The PDB creates many proposal components interactively and provides additional guidance about format requirements. Users are advised to establish a PDB login and become familiar with the system early in the process. User-uploaded components must be in A4 or U.S.-letter page size with 11 or 12-point font, 1.5 line spacing, and 2.5 cm minimum margins (see **Section 1-1 below**). Figures should have sufficient resolution to show all relevant details. Once the SSO accepts the proposal and verifies its format compliance, access for uploading site characterization data files into the Site Survey Data Bank (SSDB) at <http://ssdb.iodp.org> is granted. Questions regarding proposal submission and proposal handling should be directed to the SSO (science@iodp.org).

An overview of the criteria used for evaluation of proposals is provided at: <http://www.iodp.org/program-organization/science-evaluation-panel>; <http://www.iodp.org/proposals/about-proposals>; and <http://www.iodp.org/top-resources/program-documents/policies-and-guidelines> (file “*IODP Proposal Evaluation Overview July 2020*”).

1-1 Summary of Proposal Format Requirements

Proposal Type	Preliminary Proposal	Full Proposal *	Ancillary Project Letter (APL)	Addendum	Proponent Response Letter (PRL)
General	Abstract: 400 words or less (not necessary for PRL) Scientific Objectives: 250 words or less (not necessary for PRL) Figures: Cannot be larger than a single-page A4 or US Letter In-text References: Must be (Author, year) and not numerical superscripts Font Size: 11 or 12 point Line Spacing: 1.5 Margin: 2.5 cm all around				
Maximum Image and File Sizes	Single Site Figure PDF: Maximum 10 Megabytes (MB) Main Text PDF including Figures: Maximum 15 MB				
Deadlines	1 April, 23:59 GMT 1 October, 23:59 GMT			As requested	
Main Text	≤ 4,500 words	≤ 10,000 words	≤ 2,500 words	≤ 4,000 words	≤ 2,500 words
Figures and Tables **	≤ 8	≤ 12	≤ 5	≤ 8	≤ 5
List of Proponents	Required	Required	Required	Required if new proponents are added	None
List of Potential Reviewers	None	Required	None	None	None
Curriculum Vitae (CV)	None	Required	None	Required if new proponents are added	None
Proposal Cover Sheet	Required	Required	Required	Required	None
Site Forms: 1. General 2. Site Survey 4. Environmental 5. Lithologies & Site Figures	Form 1 is Required	Forms 1, 2, 4, 5, and Site Figures are Required ***	Forms 1, 2, 4, 5, and Site Figures are Required	Forms 1, 2, 4, 5, and Site Figures are Required for New Sites	None
How to Submit	All proposal types must be submitted using the PDB accessible at http://proposals.iodp.org Site characterization data should be uploaded via the SSDB at http://ssdb.iodp.org Please contact SSO (science@iodp.org) if you encounter submission problems.				

* Full Proposal also includes the sub-proposal types of Multi-phase Drilling Project (MDP – Section 4-2), Complementary Project Proposal (CPP). See separate Table for Land-2-Sea proposals below (Section 4-3).

** Figures and Tables are part of the user-uploaded Main Text pdf. They are not uploaded as separate files.

*** Detailed site descriptions are not required for MDP proposals, but general site identification is encouraged.

1-2 Proposal and Data Confidentiality

All IODP proposals are **confidential** documents **throughout** the nurturing, evaluation and scheduling processes of the *JOIDES Resolution* Facility Board (JRFB) and its Advisory Panels, and any other Facility Board that utilizes the JRFB Advisory Panels. All individuals, who receive and review IODP proposals that are distributed by the SSO, acknowledge that all scientific ideas and site characterization data contained therein belong to the proposal authors (“proponents”) and implicitly agree that they will **not disclose and not disseminate** proposal contents and will **not discuss** the proposal outside the context of their roles with the IODP.

All IODP proposal documents, including Site Forms; all site characterization data files stored in the Site Survey Data Bank (SSDB) in support of the IODP review process, with the exception of **restricted** data files noted below; and any other required data or optional supplemental documents, whether flagged by the proponents in SSDB as either **release** or **hold**, become available for expedition planning and implementation purposes when the JRFB, or any other Facility Board, schedules a successful proposal as an IODP drilling expedition.

Restricted-distribution site characterization data (e.g., confidential industry data or data covered by a Limited Non-Disclosure Agreement) should if possible be uploaded into the SSDB, and used to support an IODP proposal, with the requirement that at least a predefined subset of **minimum data** be made available in support of the IODP review process and be made available for expedition science, implementation, and safety purposes when a successful proposal is scheduled as an expedition. For **restricted** data the **minimum data requirement** is described in **Section (5)** of the **Standard IODP Confidentiality Policy**.

Proponents are responsible for ensuring the removal of all confidential information prior to the submission of a proposal document into the PDB, and for identifying **restricted** data files in the SSDB.

Before proceeding, please read the **Standard IODP Confidentiality Policy** and the **Use of Limited Non-Disclosure Agreements in IODP** for which the most up-to-date versions are available online at <http://iodp.org/policies-and-guidelines> and <http://iodp.org/proposals/submitted-proposals>.

Chapter 2 Submitting a Preliminary Proposal

You start by writing a **Preliminary Proposal** outlining science that addresses one or more of the four major themes of the IODP Science Plan (www.iodp.org/iodp-science-plan) and that requires scientific ocean drilling. The IODP Science Plan provides a context for generating proposals, but is intended to be enabling rather than prescriptive.

Proponents who have a new idea for scientific ocean drilling are advised to first submit a Preliminary Proposal before engaging in the preparation of the lengthier Full Proposal.

A Preliminary Proposal is **required** if the riser platform *Chikyu* is being requested.

It is strongly recommended that proponents contact the appropriate IODP Science Operators (<http://www.iodp.org/expeditions/science-operators>) early in their proposal preparation before submission in order to discuss drilling platform capabilities, the feasibility of their proposed drilling plan and strategies, and the required overall timetable for transiting, drilling, coring, logging, and other downhole measurements.

Preliminary proposals that involve biosphere-related objectives may be affected by the **Nagoya Protocol** on “Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization” part of the Convention on Biological Diversity (<https://www.cbd.int/abs/>). For targets within an Exclusive Economic Zone (EEZ) or an Extended Continental Shelf (ECS), proponents should become familiar with the protocol’s requirements for potential users of genetic resources to obtain the prior informed consent (PIC) of the country in which the genetic resource is located before accessing the resource.

2-1 Preliminary Proposal Format and Scope

The Main Text of a Preliminary Proposal is $\leq 4,500$ words long, including captions for figures and tables, with ≤ 8 figures and/or tables (**Section 1-1**). It should describe a compelling hypothesis or idea supported by a conceptual drilling strategy. Proposals range from hypothesis-driven to question-driven, from discipline-specific to interdisciplinary, and from simple to complex. They should address questions that are of interest to the global scientific community and are typically linked to relevant parts of the IODP Science Plan. A preliminary proposal should:

- State the scientific objectives and explain how those objectives relate to, or advance beyond, the IODP Science Plan 2013-2023, including the theme(s) and challenge(s) addressed;
- Justify the need for drilling to accomplish the scientific objectives;
- Present a conceptual strategy for addressing the scientific objectives through drilling, logging, or other downhole measurements;
- Describe the proposed drilling sites, penetration depths, and expected lithologies;
- Discuss the availability, or plans to acquire, site characterization data;
- Discuss the recovery rates needed to achieve key goals;
- Describe any development of advanced and non-standard tools, special sampling techniques, downhole measurements, and/or borehole observatories;
- Identify any logistical problems, e.g., extreme weather, sea-ice, piracy, or others; and
- Describe briefly any relationships to other international geoscience programs or initiatives.

2-2 Additional Required Information

Preliminary Proposals also include the following items that do **not** count against the word count limit (Section 1-1), and that are **created interactively or uploaded separately** in the online PDB system:

- An official proposal cover sheet, complete with an abstract of 400 words or less, and a statement of the scientific objectives of 250 words or less;
- A list of proposed drilling sites, including alternate sites, with brief site-specific objectives and Site Form 1 for each proposed primary and alternate drilling site. Site names **must** conform to the established system and site coordinates must use WGS 84 in units of decimal degrees, to at least the fourth decimal place (**Appendix 7-1**);
- A list of proponents (maximum 20), specifying the name, affiliation, email address, and expertise of each proponent. Up to 10 lead proponents may be specified. The Principal Lead Proponent and Data Lead (i.e., the lead proponent for site characterization data) also need to be identified; and
- A separate PDF document of the proposal's References that are cited in the Main Text.

Upon acceptance of the proposal by the SSO, individuals listed in the proponent table receive an automatic email notification to confirm that they have agreed to this role.

2-3 Review of Preliminary Proposals by the SEP

The SSO sends the Preliminary Proposals to the Science Evaluation Panel (SEP). The SEP consists of members of the international scientific community who volunteer to serve the IODP by reviewing proposals. It is a rich advisory resource for proponents in providing guidance and critical advice about the science and feasibility of their proposals.

2-3-A Watchdog Assignments

The SEP Chairs assign watchdogs to examine and present your proposal to the panel. This watchdog team typically includes two scientists to assess the scientific objectives presented in the proposal and two to review the uploaded site characterization data; the fifth watchdog is a representative of the appropriate IODP Science Operator.

The SEP assesses each proposal in terms of its relevance to the IODP Science Plan 2013-2023, the suitability of the study area, study sites, and platform for addressing the proposed scientific objectives, and whether the achievement of those objectives would likely result in fundamental scientific advances. The SEP seeks advice on technical aspects of the drilling proposal and proposed drilling strategies through the fifth watchdog, who is a representative from the IODP Science Operator.

2-3-B Proposal Evaluation and Decisions

Proponents receive a written summary of the SEP's review, including their consensus decision, after the meeting. For *Chikyu* riser proposals, a combined review from SEP and the *Chikyu* IODP Board (CIB) is provided (see below for details). The feedback proponents receive could be summarized by one of the following statements:

- Great idea, in line with the science vision of the program, likely achievable by scientific ocean drilling;
- Interesting concept with potentially high impact, but difficult to see how the problem is addressed by scientific ocean drilling; or
- Idea not as interesting or transformative as others received, and thus not likely to move forward as a drilling proposal in its current state.

The SEP summary includes one of the following three decisions:

i. Request for a Revised Preliminary Proposal

If SEP finds the proposal has a potentially compelling scientific idea but that further work is required before moving to the Full proposal stage, SEP would recommend that you revise your **Preliminary Proposal** to incorporate the

recommendations from the SEP review and to further develop your idea. Only one revision of a Preliminary Proposal is permitted.

ii. Request for Full Proposal

The SEP recommends that you develop a **Full Proposal** to further describe your idea, and potentially coordinate your efforts with other closely-related proposals.

iii. Preliminary Proposal is Declined

The SEP may **decline** the Preliminary Proposal if the science objectives are not well described or are not compelling, if the drilling strategy doesn't adequately support the science questions, and/or if the drilling program is simply not feasible.

Declination of a Preliminary Proposal often harbors the supportive message to re-scope the proposal and to resubmit a **thoroughly** new Preliminary Proposal.

The recommendation includes the contact information for the proposal watchdogs and the SEP Chairs. It is recommended that you contact one or more of the watchdogs or Chairs to discuss the SEP's recommendation and to gain more insight into the next steps in the IODP proposal process for your proposal. In these cases please copy the SSO (science@iodp.org) on your email correspondence.

For proposals planning to use the *Chikyu* for riser drilling, the SEP review is forwarded to the (CIB) for its consideration and for its preliminary assessment of the technical and financial feasibility of the project. Proponents then receive a summary of both the SEP and CIB reviews directly from the CIB. This summary includes either an invitation to submit a workshop proposal (as a predecessor to the submission of a Full Proposal) or notification that the Preliminary Proposal is being declined.

Response to SEP and Proposal Improvements. An obligatory word-limited (up to 500 words) Review Response section must be completed on submission within the Proposal Database system for all proposals unless the author indicates that the proposal is a completely new idea and proposal. This section will not count against the word count for the main proposal. The proponents must summarize how their submission has addressed previous SEP reviews (i.e., what has been changed from previous versions of the proposal). The proponents will need to select if their proposal is a) a completely new idea, b) a revised proposal or c) a new submission of a declined or deactivated proposal. If they select b) or c), proponents will not be able to submit the proposal until this response section is completed. A submission can be **rejected** without SEP review, for

example, if the proponent has submitted essentially the same proposal without making changes asked for by SEP in previous reviews. This decision will be made by the SEP Chairs and the primary basis of this decision will be what the proponent has provided in their Review Response section.

Chapter 3 Submitting a Full Proposal

Proponents who have previously submitted a Preliminary Proposal may submit a **Full Proposal** if advised to do so by the SEP or by the CIB and SEP for *Chikyu* riser drilling proposals. The SEP also may have requested a revision of a previously submitted Full Proposal, although such a revision request is only possible once.

Proponents may consider skipping the Preliminary Proposal (only for *JOIDES Resolution* or *MSP* proposals) and moving immediately to submission of a Full Proposal. However, this is generally **not advised** as it limits feedback from the SEP at an early stage of proposal review. Contact the SSO at science@iodp.org for additional advice about whether submission of a Preliminary or Full Proposal is appropriate.

3-1 Full Proposal Format and Scope

The main text of a Full Proposal is $\leq 10,000$ words long, including captions for figures and tables, with ≤ 12 figures and/or tables (**Section 1.1**). It should describe extensively all aspects of the full scientific experiment, drilling plans, and the operational information necessary to determine feasibility, data availability, and site assessment needs. Think of it as a step from a great idea to one that can be implemented in the real world, with present technology and within a reasonable length of time.

Prior SEP reviews, input from other IODP Advisory Panels and/or workshop input should be **carefully considered** and **addressed** in a Full Proposal.

Excellent Full Proposals, whether complicated and extremely interdisciplinary, or simple and discipline-specific, share a number of elements:

- They have strong and compelling science hypotheses/questions that require scientific ocean drilling;
- They are responsive to the input from the SEP;
- They are innovative and have an acceptable balance between risk and potential for achievement.

A Full Proposal should:

- State the scientific objectives and explain how those objectives relate to, or advance beyond, the IODP Science Plan 2013-2023, including the theme(s) and challenge(s) addressed;

- Justify the need for drilling to accomplish the scientific objectives;
- Present a well-defined strategy for addressing the scientific objectives through drilling, logging, or other downhole measurements;
- Provide detailed estimates of, and justification for, the time required for drilling, logging, or other downhole measurements (consultation with the relevant IODP Science Operator is important for these estimates);
- Describe the available site characterization data and/or any plans for acquiring additional data, and discuss how the drilling targets relate to those data. Proponents are reminded to upload a comprehensive set of all available site characterization data into the SSDB by the data deadline (<http://ssdb.iodp.org>);

It is essential that a Full Proposal includes multiple **alternate drill sites** should safety or site characterization concerns preclude drilling at one or more primary sites. In addition, proposals should discuss **required recovery rates** (general) as a function of depth, and highlight particular target zones (including required recovery rates for these) in order to achieve the **primary objectives** of the proposal. Finally, the proposal should address the impact on the science if required recovery rates or specific sites are not achieved.

- Discuss the expected scientific outcome of drilling and any subsequent work required to complete the overall project;
- For **MSP proposals**, in order to increase operational flexibility, proponents are asked to outline, if applicable, three different implementation plans: A) A Basic Plan listing the site(s) that is/are proposed for drilling/coring to guarantee the fulfillment of the crucial scientific objectives that must be achieved in order for the expedition to be successful. B) An Intermediate Plan in which specific priority sites are proposed for drilling/coring to guarantee the achievement of major scientific objectives and benefits achievable beyond the Basic Plan. C) A Full Plan including all proposed sites for drilling/coring to achieve all scientific objectives to their full extent and benefits achievable beyond the Intermediate Plan.
- Describe any development (including a development timeline) of advanced and non-standard tools, special sampling techniques, downhole measurements, borehole observatories or others, and include an out-year plan for observatory data recovery, maintenance, and ultimate termination;
- Describe any external funding for non-standard tools;
- For **MSP proposals**, please outline potential in-kind contributions (IKC) and project-based cash contributions from any institution, agency, or industrial partnership. IKCs may include fully/partly funded drilling platforms, support

vessels, essential scientific service that the ECORD Science Operator (ESO) would normally pay for, hazard site survey (if required), onshore facility near the drill site (if required), ice management, remote logistics and assistance.

- For **MSP proposals**, to further increase operational flexibility of these expeditions, the proponent is informed that proposals involving variable operational times that are less than the standard two-month expedition (1 month, 2-3 weeks, etc.) can be proposed.
- Identify any logistical problems, e.g., extreme weather, sea-ice, piracy, or other;
- Describe briefly any relationships to other international geoscience programs and/or initiatives.

It is strongly recommended that proponents contact the appropriate IODP Science Operators (<http://www.iodp.org/expeditions/science-operators>) early in their proposal preparation before submission in order to discuss drilling platform capabilities, the feasibility of their proposed drilling plan and strategies, and the required overall timetable for transiting, drilling, coring, logging, and other downhole measurements.

It is now possible to submit a proposal for operational time of a **few weeks only** rather than a two-month expedition. The relevant IODP Facility Board could implement a shorter scientific effort as a **hybrid expedition** or during a longer transit.

3-2 Additional Required Information

Full Proposals include the following items that do **not** count against the word count limit (Section 1-1) and that are **created interactively or uploaded separately** in the online PDB system:

- An official proposal cover sheet, complete with an abstract of 400 words or less, and a statement of the scientific objectives of 250 words or less;
- A list of proposed drilling sites, including alternate sites, with brief site-specific objectives, the appropriate set of Site Forms, and a Site Figure for each proposed drilling site. Site coordinates must be specified WGS 84 in units of decimal degrees, to at least the fourth decimal place. Site names must conform to the naming format, and the names must be updated whenever sites are relocated to a different shot point (**Appendix 7-1**);
- A list of proponents (maximum 20), specifying the name, affiliation, email and expertise of each proponent. Up to 10 lead proponents may be specified. The Principal Lead Proponent and Data Lead (i.e. the lead proponent for site characterization data) also need to be identified;

Upon acceptance of the proposal by the SSO, individuals listed in the proponent table receive **automatic email notifications** to confirm that they have agreed to this role.

- A two-page *curriculum vitae* or biographical sketch for the lead proponents;
- A list of at least five potential reviewers external to the IODP Advisory Panels (see <http://www.iodp.org/program-organization/science-evaluation-panel-members> for a list of current members of SEP); and
- A separate PDF document of the proposal's References that are cited in the Main Text.

3-3 Review of Full Proposals by the SEP

The SSO sends all new and revised Full Proposals to the Science Evaluation Panel (SEP). The SEP consists of members of the international scientific community who volunteer to serve IODP by reviewing proposals. It is a rich advisory resource for proponents in providing guidance and critical advice about the science and feasibility of their proposals.

3-3-A Watchdog Assignments

The SEP Co-Chairs assign five watchdogs to examine and present your proposal to the panel (see also **Section 2-4-A** on Preliminary Proposals). Watchdog teams principally remain the same over the lifetime of an IODP proposal going through the system, unless SEP members have rotated off or need to be replaced on the team for other reasons.

3-3-B Proposal Evaluation and Decisions

The SEP evaluates **new** and **revised** Full Proposals, after which a written review report is prepared and sent to the proponents. Depending on the stage of the proposal in the review process, an evaluation may have one of the following outcomes:

i. Full Proposal is Sent Out for External Peer Review

The SEP concludes that the (revised) Full Proposal is mature and ready for **External Peer Review**. These external reviews are managed through the SSO. Peer reviewers are asked to comment on the importance of the scientific primary and secondary objectives toward the advancement of the IODP Science Plan 2013-2023, suitability of the study area for addressing the scientific objectives, the likelihood of achieving the scientific objectives with the proposed drilling and logging strategy, and the scientific competence of the proponents, keeping in mind that many other scientists from outside the proponent team ultimately participate in planning and executing an IODP expedition.

External reviewers remain **anonymous** outside of the SSO at all times.

Proponents receive the external reviews of their proposal from the SSO and must submit a **Proponent Response Letter** (PRL) responding to both the external reviews and the previous SEP review before the next SEP meeting. A PRL is a PDF file submitted through the online PDB system that is $\leq 2,500$ words long, including captions for figures and tables, with ≤ 5 figures and/or tables (**Section 1-1**). The PRL should address only the specific comments or questions posed by the external reviewers and the SEP review. Occasionally, the SEP may request an additional PRL during subsequent stages of the review process. For these uncommon requests, the SSO sets an appropriate deadline for receiving such PRLs, typically at least four to six weeks in advance of the next SEP meeting.

In addition to a PRL, proponents of Full Proposals that have been externally peer reviewed may submit an **Addendum** to provide an update on relevant scientific research including new data from a new site survey, to fulfill a specific request for more information from SEP, to move proposed sites or to add new drill sites, or perhaps to present an offer of outside support from another scientific program/agency.

If drill sites are changed or added, submission of an Addendum is required to describe the changes or new sites, and to provide a rationale for how those fit the objectives in the proposed scientific drilling project (see below). However, if significant changes are implied to the objectives or strategy of the original proposal, the proponents must submit a new proposal (and thus receiving a new proposal number) instead of an Addendum.

The Addendum text is $\leq 4,000$ words long, including captions for figures and tables, with ≤ 8 figures including tables (**Section 1-1**).

An Addendum must also include the following items that do **not** count against the word count limit (**Section 1-1**), and that are **created interactively or uploaded separately** in the online PDB system:

- An official proposal cover sheet, complete with an abstract of 400 words or less, and a statement of the scientific objectives of 250 words or less;
- A list of the newly proposed or relocated drilling sites, with brief site-specific objectives, the appropriate set of Site Forms, and a Site Figure for each new site. Site coordinates must be specified in WGS 84 in units of decimal degrees, to at least the fourth decimal place. Site names must conform to the naming format,

and the names must be updated whenever sites are relocated to a different shot point (**Appendix 7-1**); and

- A PDF document of any References that were newly added in the Addendum Main Text.

The PDB submission system requires that an **Addendum** be submitted to change a site location/name (even for a small refinement). The Addendum must include revised Site Forms (only those relevant) and the relevant SSDB metadata/site data must be updated. In the case of such small changes, the main text of the Addendum can be brief, simply stating the reason for the site changes; the abstract and scientific objectives on the cover sheet most likely can remain unchanged.

ii. Full Proposal is Forwarded to a Facility Board for Implementation

Following the external reviews, the SEP reviews the proposal again, together with the PRL and any Addendum. In addition, the SEP reviews all available (and updated) site characterization data (in the SSDB) to characterize the completeness and adequacy of the data. The SEP then decides whether the proposal should be **Forwarded for Possible Implementation** by the appropriate **Facility Board**. If recommended, the SEP writes a final review assessing the priority of the proposal with respect to the IODP Science Plan 2013-2023. Finally, the SEP rates the proposal according to the criteria described as follows:

- **Excellent Proposal:** The proposal is exciting, addresses new scientific problems, or takes novel approaches to existing problems that remain unresolved or controversial and are considered of wide importance. The proposal may challenge existing paradigms, has strong potential for true discoveries and breakthroughs, and most likely will open up new avenues of research in the field(s) pursued or even beyond. An excellent proposal also has an excellent, succinct, and carefully planned scientific drilling and research plan, and in all probability, will have important societal impact. The proposal should be implemented, if at all possible.
- **Good Proposal:** This second category of proposals also has potential for producing exciting science and applies compelling research strategies. The proposal may address more mature scientific problems with less potential for major new discoveries or paradigm changes. However, good proposals are still highly likely to produce important datasets that can support long-term building of data archives, help resolve long-standing controversies in established fields of research, and thereby advance such fields of research in a significant way, possibly including new avenues of research within the fields pursued. A good

proposal also has a good and succinct drilling plan that is both feasible and carefully planned, and in all probability, the scientific and technical achievements will be important for society. Should be seriously considered for implementation, if fitting into long-term efforts or planning.

- **Fair Proposal:** This third category of proposals falls behind in terms of excitement and potential for discovery. The research in the proposal may still be able to provide important, complementary data sets that can help fill specific niches, but it is unlikely to move the field of research significantly forward, or to lead to new avenues of research. Nevertheless, a fair proposal may contain elements that, if fitting into other proposals or other planned drilling activities (e.g., regional proximity), could provide a solid scientific return for a limited program investment. The science and drill plans may show some deficiencies, while the potential societal impacts from scientific and technical achievements are not high (or poorly documented). The proposal could be considered for (partial) implementation at some point.

The Facility Board overseeing the platform in question decides whether and when a proposal will be implemented for scientific ocean drilling (**Chapter 6**). During consideration by the Facility Board, the Full Proposal may be subject to additional requirements and must satisfy all additional conditions made by the Facility Board before it can be implemented. For example, a safety review by the Environmental Protection and Safety Panel (EPSP) is required for *JOIDES Resolution* and *MSP* expeditions (**Section 6-1-C**).

iii. Request for Revision of the Full Proposal

The SEP may request a **Revision of the Full Proposal** and re-review it internally at a future SEP meeting and prior to sending it to external review. Full Proposals can be revised **only once**. There is no strict time limit for resubmission because proponents may require time to:

- Seek essential (outside) advice on technical and funding aspects to improve the overall feasibility of the drilling proposal:
- Collect additional site characterization data; and/or
- Reprocess existing data.

Proponents are advised that all necessary (new) data and metadata for site characterization must be uploaded into the SSDB (<http://ssdb.iodp.org>) by the data deadline (**Section 1**).

Proposals that are inactive for 5 years are flagged and the lead proponents are contacted by the SSO to update the status of their proposal. Proponents may submit the revised proposal and/or new data; or request a specified time extension via submission of a PRL. Inactivity or no response to the SSO inquiry results in the deactivation of the proposal.

iv. Full Proposal is Declined

The SEP may **Decline** Full Proposals at any stage, if the science objectives and hypotheses, drilling plan, and the accompanying site characterization data are not sufficiently compelling or developed. This means that the proposal is no longer kept on active status in the system and, at this stage, proponents can only reenter the system via the submission of a new Preliminary or Full Proposal.

Reasons that a proposal might not advance in IODP include:

- Proposal's science is incremental (i.e., makes only a small step forward) or is one-sided (i.e., doesn't account for alternative hypotheses);
- Proponents are unresponsive to the SEP and/or external reviewer comments;
- Proposal displays little effort on the part of the proponents to understand what makes science drillable (i.e., pursues science that is simply undrillable);
- Proposal does not critically select drilling sites and target depths to answer well-defined questions;
- Proposal does not clearly state how the proposed measurements will be used to answer the scientific questions/hypotheses;
- Proposal has scientific objectives that conform poorly with the overall goals of the program's Science Plan, and that do not bring added value to the science plan; and/or
- The data that are needed to characterize the drill site (location, target depth, stratigraphic and structural framework) and place it in a proper context are not sufficient to underpin the science or to conduct operations safely.

v. Full Proposal is Placed in the Holding Bin

Following the external reviews, the SEP may place a Full Proposal in the **Holding Bin**, if the SEP finds that the science of the proposal is mature enough to forward to a Facility Board, but the proposal still needs to complete site characterization data requirements or address specific operational issues. The proposal is released from the Holding Bin and forwarded to a Facility Board when the SEP agrees that the proposal meets all the requirements.

Response to SEP and Preproposal/Proposal Improvements. An obligatory word-limited (up to 500 words) Review Response section must be completed on submission within the Proposal Database system for all proposals unless the author indicates that the proposal is a completely new idea and proposal. This section will not count against the word count for the main proposal. The proponents must summarize how their submission has addressed previous SEP reviews (i.e., what has been changed from previous versions of the preproposal/proposal). The proponents will need to select if their proposal is a) a completely new idea, b) a revised proposal or c) a new submission of a declined or deactivated proposal. If they select b) or c), proponents will not be able to submit the proposal until this response section is completed. A submission can be **rejected** without SEP review, for example, if the proponent has submitted essentially the same proposal without making changes asked for by SEP in previous reviews. This decision will be made by the SEP Chairs and the primary basis of this decision will be what the proponent has provided in their Review Response section.

Chapter 4 Other Proposal Types

4-1 Complementary Project Proposal (CPP)

A **Complementary Project Proposal (CPP)** is a proposal with a commitment from a third-party source for a substantial amount of financial support. CPP proponents should contact the Chair of the appropriate Facility Board to enquire about the amount of outside funding required. For example, in the case of the *JOIDES Resolution*, an unrestricted donation of at least US\$ 6 million to the U.S. National Science Foundation is required to implement a CPP. Because of the specialized nature of these CPP programs, it is highly advisable to discuss potential plans for developing a CPP with the SSO and the IODP Science Operator before a CPP proposal is written and submitted.

CPP proposals and expeditions principally follow all IODP guidelines and policies. CPP proposals follow the entire SEP proposal trajectory from preliminary proposal, to full proposal, to external review; and CPP expeditions follow the IODP Sample, Data and Obligations Policies that define data moratorium and access, as well as publication responsibilities of all seagoing scientists. The level of scientific staffing for the entity contributing the CPP funds is negotiated on a case-by-case basis with the IODP Platform Provider.

CPPs should be prepared as regular IODP proposals (**Section 1.1**) but, in addition, must include a description of the financial arrangement from a third party, or must include a description of the to-be-arranged financial commitment. A letter of commitment from the funding party could be helpful.

The SEP reviews and then rates CPPs based on the same criteria as regular proposals. However, CPPs can receive fast-track consideration by the SEP if so required by the funding entity, operational plans, etc. If fast-track consideration is required, the SEP may conduct an internal science review or conduct e-reviews, and then, if appropriate, forward the proposal directly to the relevant Facility Board.

If fast tracking of the CPP proposal is not required, the SEP follows the **normal procedures** as outlined above for Preliminary and Full Proposals, including only one revision per preliminary or full proposal, external peer review, and the possibility that the CPP proposal may be declined.

The Facility Board overseeing the scheduling of the requested platform decides if a CPP is implemented, and the Facility Board may negotiate with the proponents on details of the external funding.

4-2 Multi-phase Drilling Project (MDP)

A **Multi-phase Drilling Project (MDP)** can take different forms, but the unifying concept is that the project cannot be done in a single drilling expedition. Examples of an MDP include, but are not limited to, a project that requires a long site occupation in one location, a series of scientifically related projects located in close proximity, or a project that addresses (a) large, overarching scientific question(s) requiring data from geographically distant sites.

An MDP takes a unique path through the review system. The initial **Umbrella Proposal** should define the overall scientific objectives of the entire project and justify the need for a multi-platform or multi-phased drilling strategy to achieve those objectives; this may not require site-specific information beyond some generic site description(s). The Umbrella Proposal should follow the Full Proposal format for word count and the number of figures/tables, but Site Forms and site characterization data are not required (**Section 1.1**).

The SEP reviews the Umbrella Proposal and may endorse it, may recommend revision, or may decline it if the science objectives and drilling plans (e.g., multiple platforms) are not sufficiently described.

After endorsement of the Umbrella Proposal, the SEP asks the proponents to develop a set of closely inter-related proposals that describe individual steps or phases in detail, and that identify actual drill sites in each individual component proposal. The SEP evaluates each proposal (either Preliminary Proposal or Full Proposal) within the broader context provided by the umbrella proposal.

All individual component proposals of a MDP must fulfill the **normal requirements** for Preliminary Proposals and Full Proposals (or Ancillary Project Letters; see **Chapter 5**) and follow the normal SEP review process.

The SEP decides whether a component proposal of the MDP has reached a sufficient stage of development for external peer review and whether it should be recommended to the appropriate Facility Board for possible scheduling. The SSO asks the reviewers to assess the individual proposal as a component of the MDP within the context of the Umbrella Proposal.

4-3 Land-2-Sea Proposal (L2S)

Land-2-Sea (L2S) Proposals replace Amphibious Drilling Proposals and are for projects that can be jointly implemented by the IODP and the International Continental Scientific

Drilling Program (ICDP). Both programs focus on various challenging themes of global geoscientific and socio-economic relevance, including **(1)** geodynamic processes; **(2)** geohazards; **(3)** georesources **(4)** environmental change.

To date, IODP and ICDP have jointly funded proposals which demonstrate a scientific need for one of the following:

- Both land and sea drilling (e.g., [IODP Expedition 313](#))
- Shallow marine locations where the collaboration between IODP and ICDP can achieve much more than either entity on its own (e.g., [IODP Expedition 364](#)).

Land-2-Sea Proposals are those for which full achievement of the scientific objectives require scientific drilling at **both onshore and offshore** sites or at **shallow marine sites**.

IODP and ICDP have recently revised the proposal submission procedures for L2S Proposals. There is now a common proposal submission process at each proposal stage and a joint review process by IODP and ICDP with a clear schedule and set of guidelines for proponents. This will reduce the workload and simplify the process for L2S proposal proponents, improve the effectiveness and speed of the review process and hopefully encourage more people to submit such proposals.

All proposed L2S projects will need to submit a Preliminary Proposal, a Workshop Proposal, and a Full Proposal. A workshop is required due to the complexity of such projects. See the Summary of Land-2-Sea Proposal Requirements table below for full details.

Proponents¹ (Principal Investigators and Co-Investigators) should prepare a single L2S Proposal at each stage combining the IODP and ICDP elements. Preliminary Proposals and Workshop Proposals should be submitted to ICDP (<https://www.icdp-online.org/proposals/>) and Full Proposals should be submitted to IODP via the IODP Proposal Database submission system (<https://proposals.iodp.org/index.php/site/login>). The IODP and ICDP programs will share all L2S proposal documents between them and

¹ Proponent refers to all named scientists on the proposal and is synonymous with Principal Investigator or Co-Investigator in ICDP.

arrange for joint review and response. To summarize, L2S proposal submission requires a Preliminary Proposal, followed by a Workshop Proposal, and finally a Full Proposal.

Details of each step and the specified schedule are given below. This deviates somewhat from the submission procedure for other IODP proposals, therefore proponents should pay close attention to requirements, deadlines and where to submit to at each stage. To the largest extent possible, review procedures of both programs are preserved. The joint implementation of a L2S Proposal will be resolved between the IODP Facility Boards and ICDP Executive Committee (EC) and Assembly of Governors, on a case-by-case basis.

An overview of the criteria used for evaluation of proposals is provided at the following sites:

IODP: <http://www.iodp.org/program-organization/science-evaluation-panel>; and <http://www.iodp.org/proposals/about-proposals>; and <http://www.iodp.org/top-resources/program-documents/policies-and-guidelines> (file “*IODP Proposal Evaluation Overview July 2020*”).

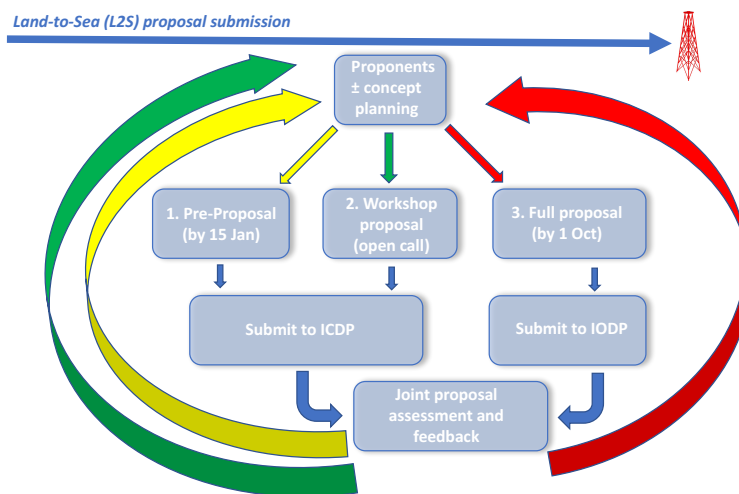
ICDP: <https://www.icdp-online.org/proposals/proposal-review-criteria/>

Note on Expedition Science Party Selection: Proponents should be aware that the science party for the IODP and ICDP components of L2S projects are selected in different ways. In the case of the IODP component, any scientist from an IODP member country can apply for participation. Selection is a combined effort by the program member country offices, the Co-Chief scientists of the expedition, and the platform operator, with the aim to enable appropriate participation of member countries and to provide the relevant scientific skills needed for the expedition. Therefore, proponents of the IODP component do not automatically become members of the Expedition Science Party. In the case of the ICDP component, up to 50% of the Expedition Science Party may be specified in the L2S Proposal. In addition, L2S Proposals may 1) include land to sea drilling, or 2) comprise only shallow marine locations. If the former, the two science parties must work closely together to prepare for the paired expeditions/projects and after for analysis and integration of results. Some overlap in membership of the two science parties is to be expected.

More information about **ICDP proposals** and how to submit a Preliminary or Workshop L2S proposal via ICDP is located at www.icdp-online.org/proposals/prepare-and-submit-a-proposal/.

4-3-A Schedule and Joint Review Process for L2S Proposals

L2S Preliminary Proposals (15 January deadline) and **Workshop Proposals (no fixed deadline)** should be **submitted to ICDP** and will be shared with IODP. **Full Proposals (1 October deadline)** are **submitted to IODP** and will be shared with ICDP. All proposals will receive review by the IODP Science Evaluation Panel (SEP) and the ICDP Science Advisory Group (SAG). IODP SEP watchdogs and ICDP appointees will generate a joint review of preliminary and full proposals, with subsequent panel review at the ICDP-SAG meeting in spring and IODP-SEP meeting in summer. A joint review letter of Preliminary and Full Proposals will be sent to the proponents following the SEP summer meeting. A revised Pre-Proposal (“Pre2”) may be requested and is permitted prior to moving to the Workshop proposal stage. Workshop proposals are accepted at any time, reviewed by ICDP, and will receive a response as soon as possible following submission. Results from the workshop should be included in the L2S Full Proposal.



If evaluated positively by the IODP and ICDP panels, Full Proposals will be sent for external review. Proponents will be expected to respond to the reviews and any concerns raised by the joint ICDP/IODP review via a “Proponent Response Letter” submitted via the IODP Proposal Database system. If new sites, changes to sites or other details are requested, an “Addendum” should be submitted via the IODP Proposal Database system. Instructions will be given in the joint review letter and further details can be found within these guidelines (see Section 3-3-B). In parallel with other IODP and ICDP Full Proposals, one revision only of the Full Proposal (“Full2”) is permitted.

Summary of Land-2-Sea Proposal Requirements

Proposal Type	L2S Preliminary Proposal	L2S Workshop Proposal	L2S Full Proposal
General	Abstract: 400 words or less Scientific Objectives: 250 words or less Figures: Cannot be larger than a single-page A4 or US Letter In-text References: Must be (Author, year) and not numerical superscripts Font Size: 11 or 12 point Line Spacing: 1.5 Margin: 2.5 cm all around		
Maximum Image and File Sizes	N/A	N/A	Single Site Figure PDF: Maximum 10 Megabytes (MB) Main Text PDF including Figures: Maximum 15 MB
Deadlines	15 January	Any time	1 October, 23:59 GMT
How and Where to Submit	Submit a single PDF file to ICDP at: proposal.submission@icdp-online.org	Submit a single PDF file to ICDP at: proposal.submission@icdp-online.org	Submit to IODP at: http://proposals.iodp.org Site characterization data should be uploaded via the SSDB at http://ssdb.iodp.org
Main Text	≤ 4,000 words	≤ 5,800 words	≤ 12, 000 words
Figures and Tables	No limit, so long as they convey essential information	No limit, so long as they convey essential information	≤ 14**
List of Proponents	Required	Required	Required
List of Potential Reviewers	None	None	Required
Curriculum Vitae (CV)	None	Required	Required
Proposal Cover Sheet	Required	Required	Required
Site Forms	None	None	Forms 1, 2, 4, 5, and Site Figures are Required
Site Data	No site survey data should be uploaded	No site survey data should be uploaded	Site survey data must be uploaded to the IODP SSDB

** Figures and Tables are part of the user-uploaded Main Text pdf. They are not uploaded as separate files.

4-3-B L2S Preliminary Proposals

15 January submission deadline through ICDP. Proponents should email a single PDF file to: proposal.submission@icdp-online.org

The main text of an L2S Preliminary Proposal is 4,000 words long, (A4 or US letter size, 11 or 12 point font, 2.5 cm margins, line spacing 1.5). The text limit does not include the reference list, figure and table captions, cover sheet or details of proponents (see below for details). There is no limit to figures and/or tables so long as they convey essential information.

The L2S Preliminary Proposal should:

- State the scientific objectives and explain how those objectives specifically address or advance the IODP and ICDP Science Plans;
- Justify the need for drilling to accomplish the scientific objectives;
- Present a conceptual strategy for addressing the scientific objectives through drilling, coring, logging, or other down-hole measurements;
- Describe the proposed drilling sites, penetration depths, and expected lithologies;
- Discuss the availability of, or plans to acquire, site characterization data;
- Discuss the % core recovery rates needed to achieve key goals;
- Describe any requirements for or development of advanced and non-standard tools, special sampling techniques, down-hole measurements, and/or borehole observatories;
- Identify any logistical problems, e.g., political issues, permitting problems, extreme weather, sea-ice, piracy, or others; and
- Describe briefly any relationships to other international geoscience programs or initiatives.

L2S Preliminary Proposals should also include the following items (that do **not** count towards word or page limits). Writing guidelines and templates can be found at <https://www.icdp-online.org/proposals/prepare-and-submit-a-proposal/writing-guidelines/>.

- An official proposal cover sheet, complete with an abstract of 400 words or less, and a statement of the scientific objectives of 250 words or less.
- A list of proponents (maximum 20), specifying the name, affiliation, email address, and expertise of each proponent. Up to 10 lead proponents may be specified. The Principal Lead Proponent and Data Lead (i.e., the lead proponent for site characterization data) also need to be identified.

- A list of proposed drilling sites, including alternate sites if known, with brief site-specific objectives.
- List of references included within the main text pdf (not counting towards the word/page limit).
- NOTE: No site survey data should be uploaded to the IODP Site Survey Data Bank (SSDB) at this stage, but will be required for a Full Proposal.

IODP will create a proposal number and site names and locations within the IODP Proposal Database and Site Survey Database systems upon receipt of the Preliminary Proposal (forwarded by ICDP; *proponents do not need to send their proposal to IODP*).

If further information is required on the scope of L2S proposals, please contact the IODP Science Evaluation Panel/SEP Co-Chairs (via <https://www.iodp.org/program-organization/science-evaluation-panel>) and/or the ICDP Science Advisory Group/SAG Chair (via <https://www.icdp-online.org/profile/program/how-icdp-runs/science-evaluation-sag/>).

4-3-C L2S Workshop Proposals

Submission through ICDP at any time, open submission deadline. Proponents should email a single PDF file to: proposal.submission@icdp-online.org

State the scientific objectives and explain how those objectives relate to, or advance, the IODP and ICDP Science Plans, including the theme(s) and challenge(s) to be addressed. A revised L2S Workshop proposal may be required after review.

An L2S Workshop Proposal should include the items below and meet the formatting requirements. Writing guidelines and templates can be found at <https://www.icdp-online.org/proposals/prepare-and-submit-a-proposal/writing-guidelines/>.

- An official proposal cover sheet
- Maximum of 5,800 words (A4 or US letter size, 11 or 12 point font, 2.5 cm margins, line spacing 1.5)
- A list of references
- A standard 2-page curriculum vitae of all proponents listed in the cover sheet (please use ICDP CV template)
- If this is a revised workshop proposal, a clear response to previous review comments should be included in a cover letter.

The following should be included within the 5,800 words:

- Discuss the scientific objectives and explain how those objectives specifically address/advance the IODP and ICDP science plans.
- Explain why the research goals are of global and far-reaching importance and why drilling is needed to achieve these goals (the programs do not consider topics of only local or regional relevance).
- Discuss the specific drilling site(s) or how these will be selected, and how they facilitate reaching the research goals.
- Discuss the societal relevance of the project, and plans for education and outreach. **Please note**, an education and outreach plan is required for an L2S Full Proposal.
- Discuss the expected scientific outcome of drilling and subsequent work required to complete the overall project.
- Present a preliminary list of workshop participants to demonstrate international participation and a broad range of expertise, including those with knowledge of the IODP and ICDP programs essential to the development of the proposal (this preliminary list should not exceed 50% of the total number of workshop participants). The proposal should specify how efforts will be made to open the workshop and project to the wider international community of researchers from various disciplines.
- Give a brief description of the structure and agenda of the planned workshop.
- Outline specific scientific and technical issues that will be discussed and developed by the workshop participants. Summarize the planned strategy for addressing the scientific objectives through drilling, core/cuttings/fluid sampling, logging and down-hole measurements, laboratory testing and/or analysis of recovered samples, and integration with existing or planned surface-based studies, and highlight any particular aspects that will be discussed at the workshop. Note that technical and drilling details only need to be briefly outlined, as it is the task of a workshop to gather a critical mass of international researchers together to develop these aspects in a Full Proposal.
- Describe the proposed drill sites (and alternate sites) on the basis of the available data, which may include geologic maps, seismic sections and other geophysical data, sediment cores or other stratigraphic interpretations, cross-sections showing expected lithologies, and relevant information from prior drilling operations. If existing site survey data are insufficient, the workshop agenda should clearly address what is needed for further site characterization prior to drilling (please refer to the site characterization requirements for IODP, <https://www.iodp.org/proposals/submitting-data> and ICDP, <https://www.icdp->

online.org/fileadmin/icdp/media/Primer/Primer_IV_low_resolution.pdf), and discuss how the necessary additional site survey data will be obtained.

- Include a workshop budget.
- Describe briefly any relationships of the drilling project or supplemental science investigations to other international geoscience programs.
- In case of similar projects already conducted within ICDP or IODP, accurately describe the relationship to these other projects and to what degree and how this project is unique.
- Note that one IODP and one ICDP review panel member will attend the workshop.
- Note that no site survey data should be uploaded to the IODP Site Survey Data Bank (SSDB), but will be required for a Full Proposal.

If a Workshop proposal is accepted, the proponents must have an open call (a web-based and/or printed advertisement) to the international scientific community for participation in the workshop of at least 50% of the total number of participants. Proponents are encouraged to seek co-funding of the ICDP workshop through IODP program member offices (PMOs), for example:

- United States: <https://usoceandiscovery.org/workshops/>
- Europe: <https://www.ecord.org/science/magellanplus/>
- Japan: https://www.jamstec.go.jp/iodp/e/ws_support/

4-3-D [L2S Full Proposals](#)

L2S Full Proposals must be submitted through the IODP Proposal Database (PDB) submission system (<http://www.iodp.org/proposals/submitting-proposals>). It is strongly encouraged that they are submitted at the 1 October proposal submission deadline, with a Data upload deadline of 1 November (to the IODP Site Survey Data Bank (SSDB): <https://ssdb.iodp.org>). We do not recommend submission at the 1 April deadline, as the proposal will not be reviewed until the following review cycle (associated with the 1 October submission deadline).

The main text of a L2S Full Proposal should be a maximum of 12,000 words long, including captions for figures and tables, with ≤ 14 figures and/or tables. The document should be formatted on A4 or US letter size, using 11 or 12 point font, 2.5 cm margins, and line spacing 1.5). The word limit does not include the reference list, the proposal cover sheet, any appendices, or the list of proponents; these should not be included in the Main Text PDF (see below for details). The proposal should describe extensively all aspects of the full scientific experiment, drilling plans, and the operational information

necessary to determine feasibility, data availability, and site assessment needs. Prior reviews, input from other Advisory Panels, and/or workshop input should be carefully considered and addressed in the Full Proposal. Note that the IODP Proposal Database (PDB) submission system also now requires completion of a Review Response section (not included in the proposal word/page limit) to summarize changes made in response to previous reviews. Details of the budget, technical and drilling plans, data management plans for the land sites (see information below) should be included as Appendices.

An L2S Full Proposal, in the Main Text PDF document, should:

- State the scientific objectives and explain how those objectives specifically address/advance the IODP and ICDP Science Plans.
- Indicate how the results from the Workshop have been integrated into the proposal.
- Justify the need for drilling to accomplish the scientific objectives.
- Present a well-defined strategy for addressing the scientific objectives through drilling, coring, logging and/or other down-hole measurements.
- Provide detailed estimates of, and justification for, the time required for drilling, coring, logging, and/or other down-hole measurements.
- Describe the available site characterization data and any plans for acquiring additional needed data, and discuss how the drilling targets relate to these data.
- For marine site characterization requirements, please refer to the IODP site guidelines (<https://www.iodp.org/proposals/submitting-data>). For land site characterization recommendations, please refer to the ICDP primer (<https://www.icdp-online.org/downloads/proposals/>).
- **NOTE:** Proponents must upload the required, comprehensive set of site characterization data into the IODP Site Survey Data Bank (SSDB, <http://ssdb.iodp.org/>) for both land and marine sites by the data deadline, **1 November**. While we normally require data submission as described in the IODP site guidelines (<https://www.iodp.org/proposals/submitting-data>), exceptions can be made under specific circumstances, e.g., proprietary data. The latter case will require communication with the Chair of the ICDP Executive Committee.
- Include sufficient alternate drill sites as safety or site characterization concerns may preclude drilling at one or more primary sites either before or during operations. This is an essential element of a Full Proposal.
- Discuss required % core recovery rate(s) as a function of depth and highlight particular target zones in order to achieve the primary objectives of the proposal.
- Address the impact on the science if required recovery is not achieved.

- Discuss the expected scientific outcomes of drilling and subsequent work required to complete the overall project.
- Describe any requirements for and/or development of advanced and non-standard tools, special sampling techniques, down-hole measurements, borehole observatories or others, and include a funding plan for observatory data recovery, maintenance, and ultimate termination.
- Describe any external funding for non-standard tools.
- Identify any logistical problems, e.g., permitting issues, extreme weather, ice conditions, piracy, etc.
- Describe briefly any relationships to other international geoscience programs and/or initiatives.
- Provide a detailed response to the joint IODP-ICDP review(s) of previous versions of the proposal.
- For *marine sites*, please note that if the proposal is selected for drilling, sites will also need to be approved by the IODP Environmental Protection and Safety Panel, EPSP (see **Section 6-1-B**).
- For *land sites*, include:
 - A detailed budget including at least two full quotes from drilling contractors. These should include costs for site preparation, drilling, down-hole measurements, on-site sample handling and analyses, down-hole monitoring, logistics/travel, etc., and should separately classify costs as contracts, consumables, and services (such as mobilization/demobilization), as well as time-dependent services in different phases.
 - A detailed technical plan and a permitting plan with details of the authority that grants permission for drilling. Note: ICDP categorizes a project according to its technical complexity and requires different degrees of technical planning for executive operations.
 - A detailed drilling, testing and logging schedule or timetable.
 - A simple Risk Matrix that identifies possible major risks that might impact the project and defines a strategy to avoid or mitigate against physical, budgetary, health and safety, or environmental failures.
 - A project management plan, defining roles and responsibilities for key personnel and identifying all proponents in essential scientific and operational aspects of the project.
 - An Education and Outreach Plan defining implementation and individual responsibilities.

- Up to 50% of the Expedition Science Party for land site drilling may be specified - this list of names should be included within the Main Text PDF file.

Full L2S Proposals should include the following items that do **not** count against the word limit and that are created interactively or uploaded separately using the IODP Proposal Database (PDB) system:

- An official proposal cover sheet, complete with an abstract of 400 words or less, and a statement of the scientific objectives of 250 words or less, created interactively on the IODP PDB system.
- A list of proposed drilling sites, including alternate sites, with brief site-specific objectives, the appropriate set of Site Forms (Forms 1, 2, 4, 5), and a set of Site Figures for each proposed drilling site. Site coordinates must be specified in WGS 84 in units of decimal degrees to at least the fourth decimal place. Site names must conform to the naming format, and the names must be updated whenever sites are relocated to a different location (created interactively on the online PDB system; see **Appendix 7-1**).
- The form “L2S_Land_Sites_additional_information_cover page.docx” should be completed to provide a summary of support requested from ICDP for land site drilling. The form can be downloaded and then re-uploaded as a PDF file when complete within the IODP PDB (Proposal Database).
- A list of all proponents (maximum 20) specifying the name, affiliation, email, and expertise of each proponent (to be created interactively in the IODP PDB system).
- Identify a single Principal Lead Proponent and single Data Lead (i.e. the lead proponent for site characterization data). Up to 10 lead proponents may be specified.
- A separate PDF document of the proposal’s References that are cited in the Main Text.
- A list of at least five potential reviewers external to the IODP Advisory Panels for marine sites (see <http://www.iodp.org/program-organization/science-evaluation-panel-members> for a list of current members of the IODP-SEP).
- Details of the budget, technical and drilling plans, data management plans for the land sites (see information above) should be included as Appendices. This should be uploaded as an “Appendices” file within the IODP Proposal Database (PDB).

4-3-E Implementation of an Approved L2S Proposal

If the Full L2S Proposal is reviewed favorably by the ICDP-SAG and the IODP-SEP, including external review from SEP, it may be forwarded to the EC and Assembly of

Governors in ICDP and the appropriate Facility Board in IODP for possible implementation. At this point, issues of coordination between the onshore and offshore drilling components are discussed between the appropriate IODP Facility Board and ICDP Operational Support Group (OSG).

Chapter 5 Ancillary Project Letters (APLs)

An individual scientist or group of scientists may wish to request additional data/samples from an already scheduled expedition in order to achieve valuable science objectives with minimum additional platform time. The mechanism to request additional coring or logging is through an **Ancillary Project Letter** (APL).

Projects proposed through an APL must require **less than 10-15%** of dedicated platform time in an expedition, including transit. This amounts to nominally 6-9 expedition days.

APLs can require an investment of drilling, logging, and technician time, as well as a berth on the platform; therefore, the IODP strives to integrate such projects with an appropriate drilling proposal as early as possible in the normal planning process. For *MSP* expeditions, the submission of APL(s) relies on a call for applications because the implementation of APLs by *MSP* primarily depends on the available budget; this call includes the scale of the APL in terms of possible added platform time and facilities.

5-1 APL Format and Scope

Investigators must submit an APL in accordance with the normal proposal and data upload deadlines, after which they are reviewed by the SEP. The APL main text is \leq 2,500 words, including captions for figures and tables, with \leq 5 figures and/or tables (Section 1.1)

A well-prepared APL should:

- Describe the project and its overall scientific goals and how they relate to the Science Plan;
- Identify the locations of interest for drilling and explain, in the context of the site characterization data, how the proposed site provides the data necessary to meet the primary objectives;
- Explain the proposed types of shipboard measurements and data collection;
- Define the requirements for ship time and shipboard personnel; and
- Identify any feasibility issues: weather windows, piracy, etc.

5-2 Additional Required Information

All APLs also include the following items that do **not** count against the word count limit (Section 1-1) and that are **created interactively or uploaded separately** in the online PDB system:

- An official proposal cover sheet, complete with an abstract of 400 words or less;
- The appropriate set of Site Forms for each proposed drilling or logging site (and any alternate sites). Site names must conform to the naming format, and the names must be updated whenever sites are relocated (**Appendix 7.1**);
- A list of proponents (maximum 20), specifying the name, affiliation, email address, and expertise of each proponent. Up to 10 lead proponents may be specified. The Principal Lead Proponent and Data Lead (i.e., the lead proponent for site characterization data) also need to be identified; and
- A PDF document of the References that are cited in the APL's Main Text.

Upon acceptance of the proposal by the SSO, individuals listed in the proponent table receives **automatic email notifications** to confirm that they have agreed to this role.

5-3 Review of APLs by the SEP

The SEP Co-Chairs assign five watchdogs to examine and present the proposal to the panel (see also **Section 2-4-A** on Preliminary Proposals). Watchdog teams principally remain the same over the lifetime of an IODP proposal going through the system, unless SEP members have rotated off or need to be replaced on the team for other reasons.

The SEP may advise investigators to further develop their ideas into a Preliminary Proposal (and eventually a Full Proposal) or collaborate with the proponents of an existing proposal. If the latter is the case, the SSO and/or the SEP Co-Chairs can initiate contact between the two or more investigator groups. The SEP may also forward a well-received APL directly to a Facility Board, particularly if it relates to a drilling proposal that has already undergone external review. Note that APLs are not given a rating by the SEP.

Chapter 6 Consideration by an IODP Facility Board

Once the SEP has forwarded an approved proposal to the **Facility Board** (FB) overseeing the *JOIDES Resolution*, *Chikyu* or *MSP*, its status changes to “at FB” proposal. Further actions are within the jurisdiction of the particular Facility Board and any further dialog to develop the proposal into an IODP expedition takes place between the Facility Board, the IODP Science Operator, the proponent team, and assigned co-chief scientists.

6-1-A Expedition Scheduling

In general, the IODP Facility Boards consider each “at FB” proposal once per year. The proposal may be included in an upcoming schedule of expeditions, based on determining factors such as platform location and capability, regional planning, estimated operational cost, anticipated science outcome and returns, and fit within the overall IODP Science Plan. Action also may be deferred to a future scheduling opportunity.

After discussion, the Facility Board Chair communicates any decisions to the proponents, which may be done via email through the SSO. At any stage, the Facility Board may ask the proponents for more information. Replies to specific Facility Board inquiries should be made via a PRL (**Section 3-3-B-i**) that is to be submitted through the PDB.

Proponents can also submit an **unsolicited PRL** to communicate any changes or status updates about “at FB” proposals to the Facility Board that are important for scheduling decisions. These documents, including potential replies by the Facility Board, become part of the IODP proposal database and archive.

All correspondence between Facility Boards and proponents must be copied to the SSO, so it can be captured in the proposal’s formal record. The Facility Board may also ask the proponents to submit an Addendum to provide an update on relevant scientific research, provide more information, relocate proposed drilling sites, or add new (alternate) sites.

When drill sites are changed or added to an already scheduled expedition, but before the expedition sails, submission of an Addendum is required to describe the changed or new sites and to provide a rationale for how those fit the primary objectives in the proposed scientific drilling project. Upon decision by the Facility Board Chair, the SEP may be asked to provide comments on the Addendum (**Section 6-1-B**), but in all cases, the EPSP reviews the sites in question via an e-review or during their annual meeting (**Section 6-1-C**). The Facility Board has the final decision in approving or rejecting any or all of the changed or added sites that are part of an Addendum.

6-1-B SEP Comment Forms to IODP Facility Boards

The Facility Board may ask the SEP to give an opinion on specific aspects of an “at FB” proposal to help the Facility Board in its scheduling decisions or implementation of expeditions. In this case, the SEP comments to the Facility Board become part of the proposal record maintained by the SSO. The SSO sends the SEP comments to the Facility Board Chair and the IODP Science Operator with a courtesy copy to the corresponding proponent or co-chief scientist. The Facility Board Chair and/or IODP Science Operator follow up with the proponent and co-chief scientists to explain what actions, if any, they require based on the SEP opinion. It is important to understand that such proposals retain their “at FB” status; in other words, they are not re-reviewed by the SEP. To emphasize this, a different **SEP Comment Form** is used.

6-1-C Safety Review by the EPSP

As part of the development of a proposal into an expedition, and typically following the forwarding of a proposal to a Facility Board, the IODP Science Operator asks the Environmental Protection and Safety Panel (EPSP) to conduct a safety review of the proposed drill sites, except for *Chikyu* riser proposals which have their own safety review process. In order to expedite the process, EPSP may decide to preview select proposals before they are forwarded to a Facility Board. As explained further in the EPSP Safety Review Guidelines (www.iodp.org/epspsafetyreviewreportguidelines) the **Data Lead** represents the proponents and participate in the EPSP safety review meeting.

The EPSP makes one of three potential recommendations for each proposed site:

- Approve as proposed;
- Approve with modification (e.g., in position and/or target depth); or
- Decline approval with suggestions for improvement.

The IODP Science Operator has final approval of all drill sites. While a SEP liaison is present at the EPSP meeting to provide perspective in the science and site discussions, the Facility Board Chair decides whether any EPSP modification to the drilling plan creates a need for re-examination by the SEP; in the history of IODP, this need has been rare. Any changes to a proposed drill site or addition of new primary or alternate drill sites requires submittal of an Addendum via the PDB to enter new site information; the latter also requires uploading of new site characterization data in the SSDB.

When an Addendum captures EPSP-directed site modifications, the main text can be brief (e.g., “site modification requested by EPSP”) and the proposal cover sheet/abstract can remain unchanged.

Chapter 7 APPENDIX

7-1 Proposed Drilling Site Names

IODP follows a uniform system for naming proposed drilling sites whereby any seafloor site ever considered for possible drilling receives a unique name. Incorrect site names are the single largest reason that proposals fail compliance check. Site names must strictly conform to the general format AAAAA-nnX, where AAAAA represents a string of two to five alphabetic characters referring to the geographic area of the proposed drilling site, nn represents the specific two-digit site number within that area (always preceded with a 0 for site numbers less than ten, e.g., WLSHE-01A), and X represents a capital alphabetic character indicating the version of a specific site. For all newly proposed sites, site names thus end with X=A. For the second version of a site (if necessary) the site names end with X=B, etc.

Whenever proponents relocate a proposed drilling site to a different shot point, they must also rename it by incrementing X, changing nn, or changing AAAAA, depending on the relative geographic proximity and similarity of the scientific objectives compared to the original site. Designated primary and alternate site names should not encode any indicators of relative priority, because site priorities often change as a proposal develops and matures. Alternate sites must have unique site names by changing nn or AAAAA (but not X).

Example: PIG-03B refers to the second (hence “B”) proposed location of Site 3 in Pigafetta Basin. PIG-04A could represent a newly proposed alternate site for PIG-03B.

7-2 The Site Survey Data Bank (SSDB)

The SSDB is the official digital repository for all site characterization data related to a particular proposal or expedition. The SSDB is accessed at <http://ssdb.iodp.org>. Required data types (e.g., maps, multichannel seismic profiles, and SEG Y data) and acceptable file formats are explained in full in the **IODP Site Characterization Data Guidelines** (www.iodp.org/iodp-site-characterization-data-guidelines).

7-3 The Site Figure

For all types of Full Proposals and APLs, a Site Figure must be prepared for each proposed primary and alternate drilling site and uploaded into the PDB. While the Site Figure does not substitute for submitting data files to the SSDB, it gives a quick overview of the quality of the SSDB files for each proposed drill site. Proponents must create the

Site Figure as a single-page PDF document (see **Pages 28-29** for representative examples) that contains the following elements, depending on data availability:

- A label identifying the document as the Site Figure and indicating the site name.
- For any displayed data that have not been submitted to the SSDB yet, the form should specify when the data will be uploaded into the SSDB.
- A clearly annotated map showing all relevant details around the proposed drilling site, including:
 - Seafloor bathymetry, with labeled contours or a depth scale;
 - The exact site location;
 - Track charts for the key seismic lines, annotated at regular intervals with the same horizontal unit (e.g., CDP (common depth point), shot-point number, etc.) as the accompanying seismic profiles; and
 - A distance scale if not apparent from the horizontal and vertical annotation.

Geographic coordinates must be in WGS 84 in decimal degrees to the **4th decimal place** if possible.

- Two profiles for each seismic line that crosses the proposed drilling site where appropriate:
 - The first profile should include an annotated vertical line showing the location (e.g., Site ABC-01A, CDP 4871) and penetration depth (or time using best depth-to-time conversion) of the proposed drilling site; this profile may also show an interpretation of the seismic data;
 - The second profile should show the same image as the first profile, but without showing the drilling site or any interpretation.
- Each seismic profile should indicate the name and orientation (e.g., NW–SE) of the survey line, have well-annotated horizontal and vertical axes, including a horizontal scale bar (in km), and have sufficient resolution to show the relevant structure imaged by the data.

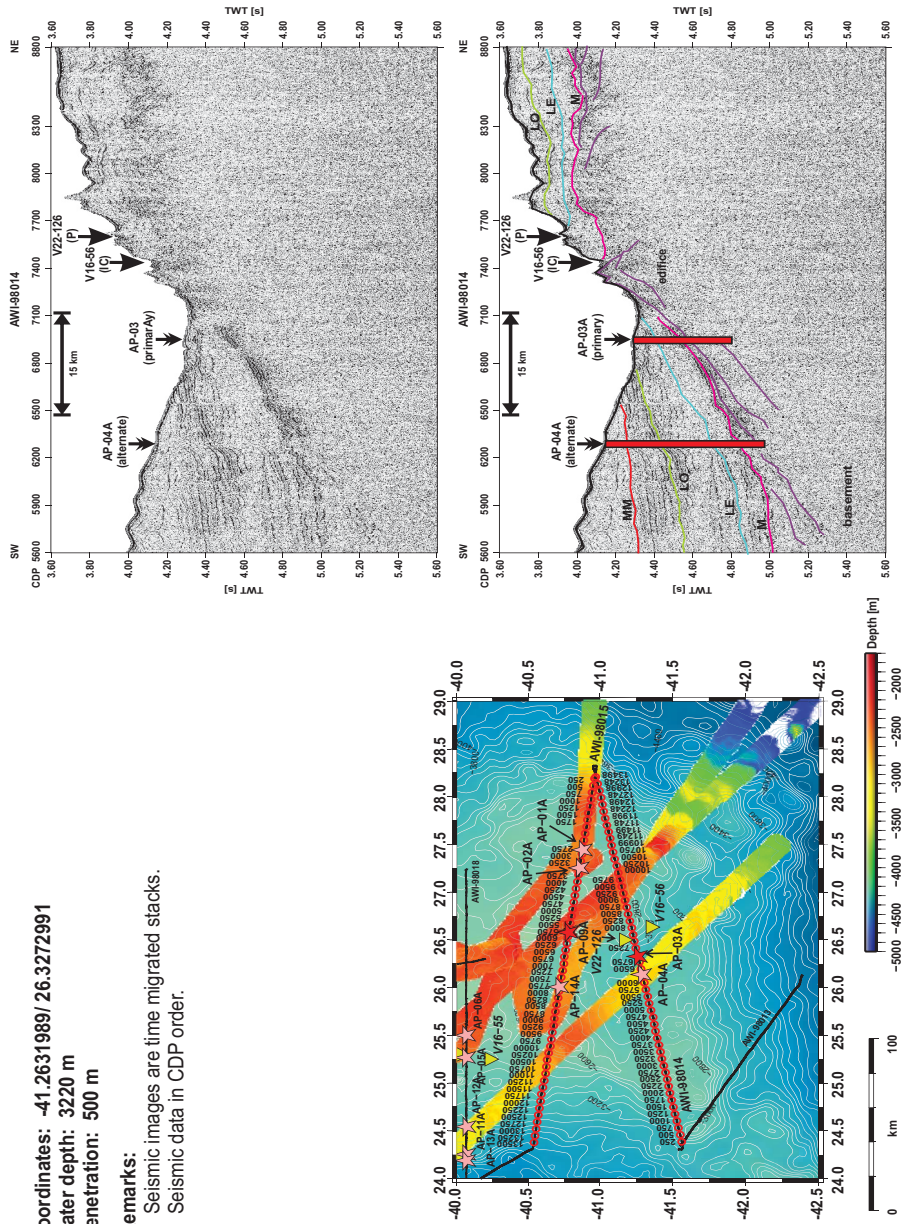
7-3-A Site Figure Example 1

Site Figure IODP proposal 834-Full Site AP-03A

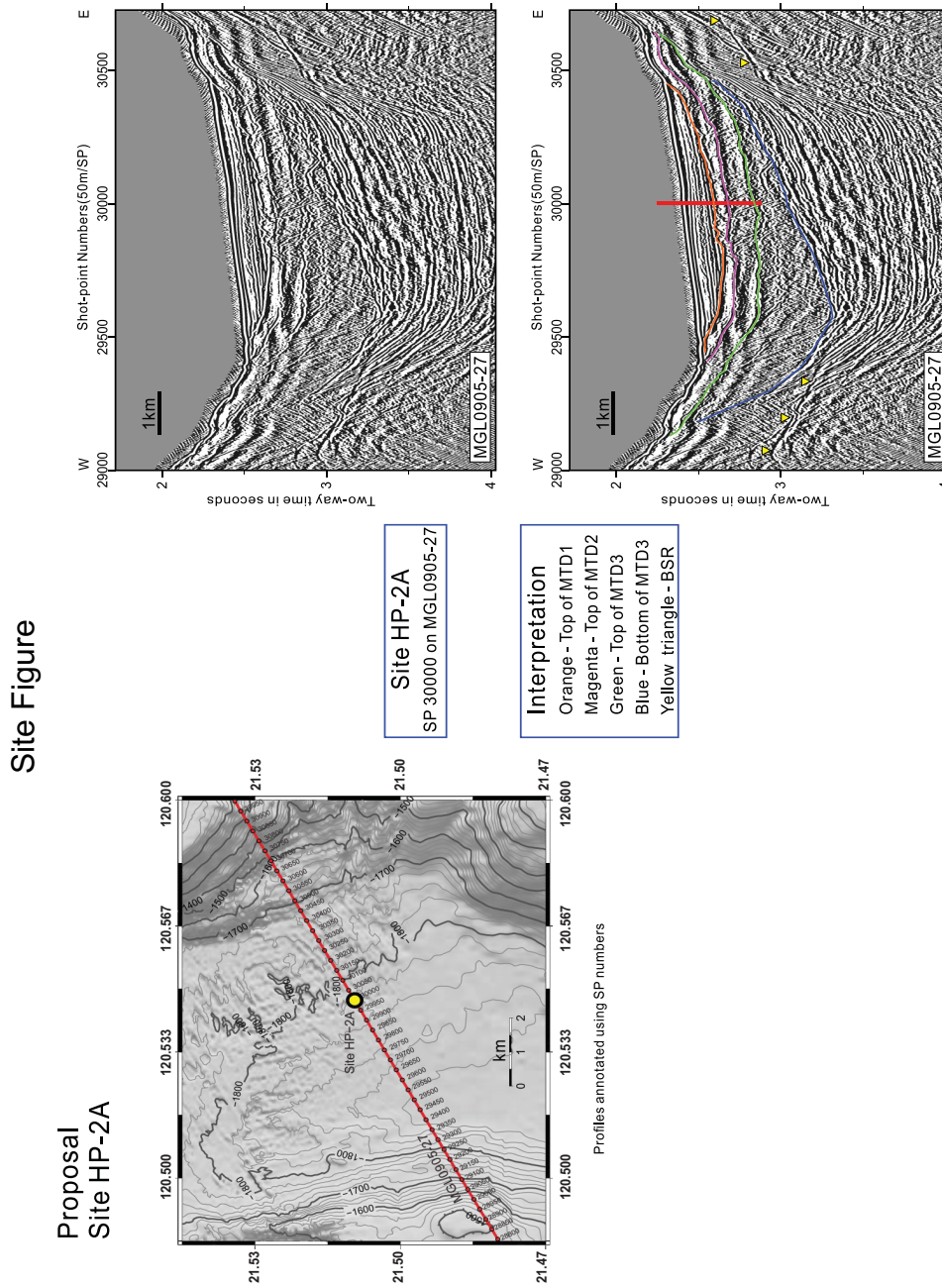
coordinates: -41.2631989/ 26.3272991
 water depth: 3220 m
 penetration: 500 m

Remarks:

- Seismic images are time migrated stacks.
- Seismic data in CDP order.



7-3-B Site Figure Example 2



7-4 Useful Site Characterization Data Links

IODP Site Characterization Data Guidelines

www.iodp.org/iodp-site-characterization-data-guidelines

SSDB Information for Proponents

<http://ssdb.iodp.org/documents/proponent-info.php>