

Swift

Deploy - Cyclones

Emergency Shelters that Scale



Fig: 1 – Climate change unstoppable phenomena.

PREMISE

Typhoons and hurricanes, or more generally, tropical cyclones, are all spinning storms of high winds (sustained winds of 73 miles per hour or greater) and intense weather like thunderstorms. The only nominal difference is the ocean basin where they originate. The most alarming factor they all share is that the **intensity and frequency** of these cyclonic **superstorms are increasing with climate change**.

Accordingly to the Intergovernmental Panel on Climate Change, climate change will lead to tropical cyclones with higher rainfall, greater intensity, and a greater proportion of high intensity (Category 4-5) storms. These changes are largely caused by warming ocean temperatures, which drive cyclonic storm activity. But sea-level rise also increases the damage caused by the storms by exacerbating the effects of storm surge, where waves generated by high winds inundate coastal areas. <https://www.gfdl.noaa.gov/global-warming-and-hurricanes/>



Fig: 2 – A view of the disruption caused by cyclones at the moment

CATASTROPHE

Global warming is a part of a larger frame of issue that accelerates these cyclones, but what eventually does not meet the eye is the number of people staying at these coasts who are susceptible to such disasters at large. The instantaneous displacement of a few hours threatens 1000s of lives and devastated homes across acres of land. A need for a swift shelter protecting the human population during a disaster and post-disaster is a must.



Fig: 3 – Local response to cyclone Idai, in Mozambique(2019) (Source: BGR)

DEPLOY CHALLENGE

Deploy invites architects, designers, engineers, and student fraternity from around the globe to take part in the world's first-ever **cyclone relief shelter design challenge**. The **Deploy** is one of the world's most coveted competitions recognizing design ideas for emergency shelters. It recognizes exceptional concepts that redefine quick shelter design through the implementation of innovative ideas, techniques, construction, visual, and technology through architecture as a tool.

Deploy embarks itself on technological and engineering innovations that are about to go big, and sets architecture free to innovate more in these uncharted and heavily testing directions. It is one of its kind platforms that promotes wayfinding during the crucial time between the catastrophe and its relief response.

OBJECTIVES

User: Emergency shelters are an engineering solution primarily, but how well do you understand the user and outline primary needs?

Structure: How innovative/efficient/effective is the structure and infill materials used in the shelter?

Assembly/Disassembly: How will the design resist theft and mishandling, by becoming a robust entity despite modularity.

Adaptability: How the shelter will adapt with stages and time after its installation and use? How can it be upgraded in further months or even a year?

SITE

The site for this competition is expected to be either in small towns or remote/rural areas where the target population can be a few to a few hundred families. The deployment period can range from a few weeks to 10-12 months. The design site can be in any of the places marked in green that are sensitive to typhoon activity. Design challenge looks at a more localized approach in building these shelters where the regional approach not only looks at manufacturing but human aspects of the place as well.

There are two expected stages in submission, one is a single unit for either a single-family or set of 2-3 families. Similarly, a community action plan for the planning of multiple units is also required for your design proposal to complete. Conceptual management of services and layout of essential facilities and toilets can be indicated on the master plan.

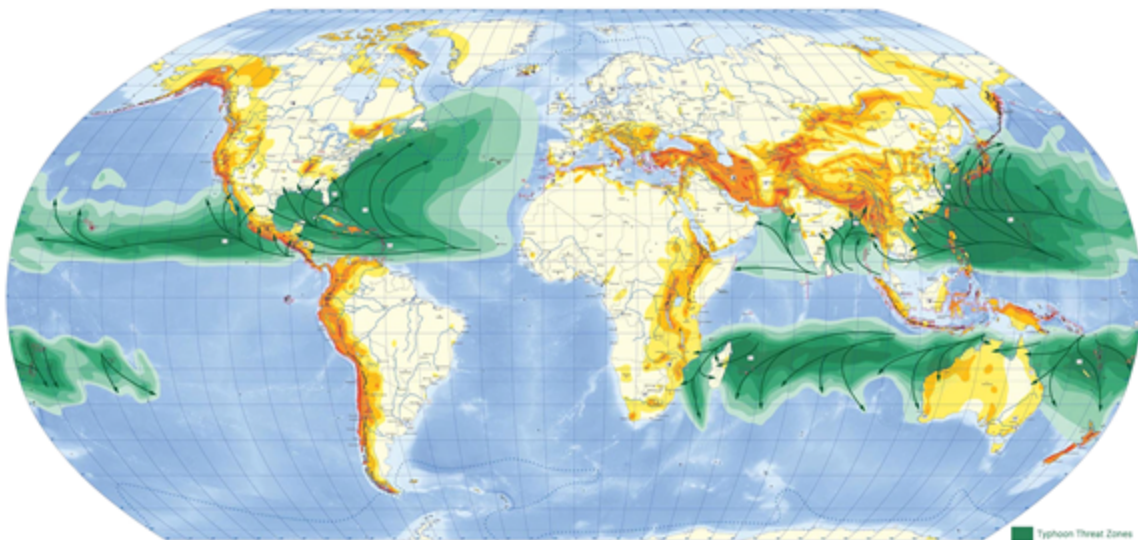


Fig: 4 – Cyclone sensitive regions in Teal Color (Source: Munich RE)

HOW TO SUBMIT?

Read all the competition rules and details from the sidebar, and hit **register**. You can pay the entry fee and book your registration right away. The additional resources directly unlock as soon as you register on your dashboard. Once you are ready with your project - begin uploading from the dashboard and follow this tutorial to submit. You can add your team members to your project while submitting it.

RULES

You have to deliver an architectural outcome on the following site, based on the given outlines.

- Recommended number of sheets/presentation images/boards: 3 (Three) of size [2800px x 3500px] in **portrait digital format (JPEG only)**.

Minimum 3 (Three) & No maximum sheet limit. Each image should be less than 15MB. (Do not submit PNG format)

Minimum requisite submissions are sheets/boards + Cover image containing:

- Site plan (Compulsory)
- Key conceptual sections x 1 (Minimum)
- 3D views x 4
- Additional cover image of 2000px x 1000px
- Write an article/story in the Journal section# of the project (of about 700-1000 words) answering the questions given in the Additional Resources.

#Journal Section appears midway in the project submission portal. More instructions in the additional resources.

RESOURCES

This competition contains additional resources that contain a set of files useful to complete the competition submission. This folder is made available on your profile dashboard automatically as soon as you register.

This additional resources folder of this competition contains: Submission Format files in PSD | AI | InDD & Guide to Journal Section + Questions

Learn more on <http://uni.xyz/competitions/deploy-cyclones/info/about>

BASE RULES

- + The competition is open for students and professionals from all disciplines of design.
- + The team limit for this competition is 4 members maximum per team.
- + You can register more than one team but they have to be registered separately.
- + Ensure that the final sheets submitted do not include your name or any other mark of identification.
- + Your submission is linked to your UNI user account which stands as your identification.
- + This is a design ideas challenge only. There is no built commission/realization associated with the problem.
- + In case of publication in the yearbook we will reach out separately for selected entries.

PRO TIPS

- + Use exploded views to discuss multi-leveled conceptual models better.
- + Mention sheet number on the corner of every sheet.
- + Plagiarism of any idea/form/design/image will be disqualified with a notice.
- + All the sheets or images will be viewed on a digital device. e.g. Laptop screen or projector. Uploaded sheets or images will not be physically printed for evaluation. The submission hence should be prepared for digital viewing only.
- + Submit JPEG images only. (PNG will not function)

JUDGING CRITERIA & JUDGES

The entries will be judged by an international jury of the competition on the following criteria:

Presentation: The fundamental to a good entry is a visual delivery of ideas.

Concept/Idea: Quality of thought and intent in the pre-design phase.

Spaces/Programme: How the spaces are calculated and ordered.

Design Outcome The final architectural outcome of the solution.

The judging panel can also add other criteria based on their internal discussions - which will be in line with the problem statement. Participants are advised to fulfill the above-given criteria first in their design. Names of the jury panel will be announced soon.

YEARBOOK

Winners of this competition will get annually published with us in our e-yearbook and annual publications.

Prizes / Deadlines / Registration

For complete information on active prizes and details on the entry fee, visit the **Awards & Fees** section of the competition here:- [Awards&Fees](#)

Learn more about this competition here:

<http://uni.xyz/competitions/deploy-cyclones/info/about>

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