INTRODUCTION
The vision of the Caltech Crisis Management Council (CMC) is that our campus community is prepared to respond to and recover from any disruption and will sustain core research, teaching, and critical operations. The Institute met this challenge in 2020 with the Sars-Cov-2 global pandemic. While the Institute’s response capabilities have been strengthened from the experience, responding to the pandemic did interrupt our planned 2020 training and exercise schedule. Below is a summary of incidents, exercises and trainings, planning efforts and activities for 2020, as well as the objectives and exercises planned for 2021.

INCIDENTS/EVENTS
Sars-Cov-2 Global Pandemic
Reports of a novel severe acute respiratory coronavirus identified in December 2019 in Wuhan, China by the World Health Organization (WHO) prompted the Caltech Infectious Disease Task Group (IDTG) to activate in January 2020. Days later the WHO declared a Public Health Emergency of International Concern (PHEIC). From January to March the IDTG reviewed our existing pandemic plan and identified specific focus areas and work groups to strengthen preparedness. Student Affairs conducted a coronavirus tabletop exercise with their organization’s leadership. On March 4th, 2020 LA County and the City of Pasadena declared a Public Health Emergency. Caltech’s Emergency Operations Center activated on March 12 and quickly transitioned to a virtual Emergency Operations Center (EOC). The Student Affairs Division Control Center also activated virtually. A Division Operations Officer Team was established in Microsoft Teams to facilitate information sharing and coordination. On March 19, the State and County issued a Safer at Home Health Order. Only critical personnel who were unable to work remotely and researchers approved by organizational and division leadership, were permitted to report to campus. All classes transitioned to remote instruction and undergraduate students were required to vacate campus housing. Recognizing the mental health impact of the pandemic, all mental health services for students, staff, faculty, and postdocs were migrated to online platforms, including phone and HIPAA-protected Zoom Medical. Additional mental health tools and resources were added to the websites for Student Wellness Services and the Staff and Faculty Consultation Center (SFCC). SFCC introduced a text message option for Spanish-speaking and English-speaking employees to reach a counselor. SFCC provided support to leadership and affected personnel following deaths in the employee population. In early June, the City of Pasadena approved research to resume on campus, in accordance with Pasadena Public Health’s Reopening Office Workspace Protocol.

Based on guidance from the Centers for Disease Control and Prevention (CDC) and in accordance with local health authority requirements, the Institute’s response has focused on:
  a) Promoting behaviors that prevent the spread of COVID-19, such as: requiring all those on campus to adhere to physical distancing, wearing a face covering, and staying home when ill
b) Maintaining healthy environments through measures such as increased cleaning and disinfection, installation of plexiglass barriers where appropriate, and testing of ventilation systems.

c) Maintaining healthy operations by requiring telework where feasible, continuing remote instruction, providing takeout dining options only, and offering only outdoor fitness activities. Those who report to campus are required to review and adhere to Return to Campus training and Infection Prevention guidance materials. Policies supporting healthy operations include flexible leave options, travel quarantine, and restrictions on gatherings. Those reporting to campus are also required to provide daily health attestations and must participate in the on-campus surveillance testing program which commenced in December 2020.

d) Responding to confirmed cases involving members of our campus community which includes notification and coordination with the Pasadena Public Health Department, isolation and quarantining procedures and support, cleaning and disinfecting affected spaces, and contact tracing.

The recent emergency use authorization of vaccines suggests that increased control of COVID-19 is on the horizon. It should be expected that Caltech will continue to respond and recover from Sars-Cov-2 for the remainder of 2021.

Bobcat Fire
The Bobcat Fire began on September 6, 2020 and burned over 100,000 acres in the Central San Gabriel Mountains. While there was no threat of fire to campus, assets on Mt. Wilson were threatened and the foothill communities from Monrovia to Altadena were under an evacuation warning, affecting many members of our campus community. Further, several other wildfires were burning in Southern California and throughout the state at the time, creating very poor air quality. The poor air quality significantly impacted outdoor operations. A Wildfire Plan with an Air Quality Index decision matrix was developed in response and will be included in the next version of the Campus Emergency Management Plan (CEMP).

Earthquake
On September 19, 2020 at 10:38pm, a magnitude 4.5 earthquake occurred South of campus near the city of El Monte. Shaking was felt on campus. No injuries or building damage were identified.

EXERCISES AND TRAINING

- **Virtual EOC Exercises – January 27, 2020**
  Reinforcing skills learned during three virtual EOC training exercises held in 2019, and in preparation of COVID-19, a training exercise using Microsoft Teams was held.

- **Great California ShakeOut Drill – October 15, 2020**
  For the 13th consecutive year, members of the Caltech community practiced earthquake preparedness, at home or on campus, by following the “Drop, Cover and Hold On!” procedure during the annual Great ShakeOut Earthquake Drill.
• **Earthquake Tabletop Exercise – November 10, 2020**
  A tabletop exercise was held with members of the CMC that discussed response procedures for dealing with the blended threat of COVID-19, and a major earthquake that disrupts all traditional communication methods, thereby preventing the EOC from coordinating remotely.

• **Divisions and Departments**
  Divisions and Departments reviewed continuity plans and many revised their Emergency Action Plans to include additional building coordinators in order to provide coverage for buildings whose primary building coordinators are working remotely. Building coordinator trainings were added to support these individuals. In addition, Student Affairs also coordinated a Graduate Student training on blended threats, a Residential Life staff training on blended threats and evacuations during COVID-19 and the Office of Residential Experience conducted a blended threat tabletop exercise involving a large earthquake scenario. Student Affairs Emergency Management Council also held a tabletop exercise involving a large earthquake during COVID-19.

**PLANNING**

• **Campus Emergency Management Plan (CEMP)**
  The Caltech Campus Emergency Management Plan is under regular review and revision. Specific plans that were written or revised in 2020 include: Campus Alerts and Warnings, Active Shooter and Hostile Event Response, Disaster Financial Recovery, Disaster Medical, Earthquake, Family and Victim Assistance, Hazmat, Infectious Diseases, and Wildfire. The next revision will be issued in the spring of 2021.

• **Continuity Planning**
  Progress towards establishing departmental continuity plans continued in 2020. Twenty-four new plans were developed in 2020. This brings the total number of plans to 166 in the Caltech Ready continuity planning tool. Many groups conducted continuity planning as a result of COVID-19 and are being encouraged to capture their planning efforts in Caltech Ready.

**CAMPUS OUTREACH AND EDUCATION**

• **Pasadena Community Emergency Response Team (CERT) training -- January 25-Feb 1, 2020**
  The CMC hosted a City of Pasadena CERT training. While open to the public, several staff members and graduate students attended the 30-hour class. Modules included the Incident Command System, disaster preparedness, fire safety/fire suppression, light search and rescue, and disaster medical operations including a Stop the Bleed training.

• **Personal Preparedness Activity – October 15, 2020**
  The Personal Preparedness Fair is held annually in conjunction with the Great California ShakeOut. This year a virtual activity was held to raise awareness about personal preparedness and educate the Caltech community on measures that can be practiced at home or on campus.

**STUDENT OUTREACH**
• Virtual orientations for incoming grad students and undergrads included information on fire safety, earthquake procedures, and active shooter. A virtual training on blended threats for Graduate Students was also conducted.

2021 OBJECTIVES
• Continue to respond and recover from Sars-CoV-2
• Capture takeaways from Sars-CoV-2 in the After-Action Review (AAR) to strengthen infectious disease planning and Institute response to major emergencies
• Strengthen continuity planning efforts with academic, operational, and auxiliary Divisions and Departments.
• Implement applicable NFPA 3000 enhancements for increased ASHER readiness.
• Continue to strengthen Emergency Action Plans in academic, operational, and auxiliary Divisions and Departments.
• Continue to strengthen student readiness and awareness of emergency procedures.

2021 PLANNED EVENTS AND EXERCISES
Note that this schedule is flexible and may change based on level of COVID-19 activity in the community
• Disaster Medical Tabletop Exercise (February)
• Annual Emergency Responders Forum (May)
• Technical Communications Exercise (May)
• Building Evacuations (June)
• Water Filtration Unit Training (June)
• Generator Refueling (July)
• Extended Power Outage Tabletop Exercise (August)
• Pasadena Fire Department Tabletop Exercises (August)
• Campus Violence Prevention (September)
• Great California ShakeOut Drill and Personal Preparedness Fair (October)
• Functional Earthquake Exercise (November)

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