StEER QUICK REFERENCE SHEET: ACTIVATION PROTOCOL

Response Level	Personnel Model	Products
Level 1: Virtual Data Gathering	VAST (Virtual) assembling of available data, news and media	• Preliminary Virtual Reconnaissance Report (PVRR)
Level 2: Rapid Field Assessment	FAST - 1 (Scout) with rapid imaging capability	• Early Access Reconnaissance Report (EARR) • Curated dataset (I)
Level 3: Detailed Field Assessment	FAST - 2 (Field Investigation) with in-depth assessment capability	• Data Paper • Curated dataset (II)

Level 1: Major hazard event with **potential** to generate new knowledge *meets majority of the following criteria:*		
Hazard	**Exposure**	**Feasibility**
• Major intensity event (e.g., EF4, Cat 3, M5.5, Tsunami alert issued) • Long-duration events (e.g., slow moving lower intensity hurricane) • Notable joint/compounding hazards • Succession of events (e.g., sequence of earthquakes/aftershocks, tornado outbreak, multiple hurricanes in a season)	• Sufficiently populated area to create measurable impacts • Noteworthy code or construction practices (e.g., test of revised codes, mitigation measures/retrofits) • Critical infrastructure • Under-documented structure classes • Existence of models or measurements, e.g., instrumented structures, digital twins, testbeds • Communities with history of recovery OR those rarely exposed	• Availability/interest of members • Sufficient media/social media coverage on event, including the potential to automate mining of information • Bandwidth of StEER support team (e.g., multiple concurrent responses)
Level 2: Major hazard event with **evidence** of the ability to generate new knowledge *meets majority of the following criteria:*		
Hazard	**Exposure**	**Feasibility**
• Design-level event (hazard intensity meets or exceeds code requirements	• Significant loss of life • Highly vulnerable structures with	• Availability of necessary equipment (e.g., imaging hardware)

and/or corresponding Mean Recurrence Intervals within PBE framework) ● Hazard characteristics are unique (verified upon inspection of field observations/records)	severe damage or collapse and/or highly engineered structures with lower damage states ● Recurring cases of nonstructural damage and potential of prolonged downtime and recovery ● For international: construction practices consistent with or analogous to US practice	● Driving access to affected areas (e.g., curfews or restrictions can be navigated) ● Safety (security, public health, etc.) ● Availability/interest of members near impacted region ● Availability of sufficient support from regional nodes ● Deployment of other EERs or other initiatives collecting field observations
Level 3: Major hazard event with **identified** knowledge gaps *meets majority of the following criteria:*		
Hazard	**Exposure**	**Feasibility**
● Some aspects of the event exceed code requirements (above code wind/ground shaking/coastal flooding, etc.) ● Site-specific hazards require up-close evaluation, e.g., evidence of ground failures, scour, debris fields, localized wind effects, treefall patterns	● Performance/failures observed requires direct access to load path or other details to ascertain causes ● Identification of multiple structures suitable for in-depth forensic investigation ● Extent of damage (greater than localized Level 2 event) requiring multiple field teams or multiple field visits ● Full range of damage levels present for fragility function development. ● Variety of building typologies, occupancies, code eras ● Conditions conducive to longitudinal studies of community response and recovery ● Availability of as-built and retrofitted structures ● Evidence of structural performance affecting community resilience ● Sufficient instrumented structures and sensor data available	● On-site/up-close access to targeted structures is anticipated ● Availability/interest of members with logistics plan to travel to site (including international locations with visa and other travel restrictions) ● *For international: Availability of local colleagues/engineers/sources to facilitate and guide the planned visits*