

NEW ZEALAND NATIONAL SOCIETY FOR EARTHQUAKE ENGINEERING EARTHQUAKE RECONNAISSANCE SCHEME

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It is well established that the most useful and valuable information about the behaviour of buildings, civil engineering structures and lifeline services in a damaging earthquake, is available immediately after the event occurs. As the emergency response progresses, the value diminishes as evidence of actual damage is covered up, torn down or repaired.

Members will know that the New Zealand National Society for Earthquake Engineering has for many years operated a reconnaissance Scheme. Its purpose is to send a team into an area as soon as possible after an earthquake has struck, to record damage to buildings, infrastructure, geology, as well as note the effects on society. The information gleaned is used in the review of codes relating to all types of design and construction, and assists the promotion of awareness and practical preparedness for such events in this country.

The Reconnaissance Scheme operates a pool of specialists, structural, building services, electrical and mechanical engineers, architects, lifeline experts, geologists, etc, from which a team is selected - often at short notice. To function efficiently, the scheme requires additional personnel in all the above listed disciplines from virtually every part of the country. The exception is the Wellington region where, perhaps understandably, representation is adequate. The policy is to draw from people living outside the earthquake affected area because those in the area will already have their hands full.

Applications to join the team pool are invited from those experienced in earthquake design in the most general overall sense, who are fit, mobile and again in the general sense, available.

Towards the end of 1995 the Society published a new edition of its Reconnaissance Manual and copies were provided to all current Team Pool members of the Earthquake Reconnaissance Scheme.

Membership of the Pool is currently 68 of whom 20 are in the Northern Region, 29 are in the Central Region, 12 are in the Southern Region, and 7 are overseas members.

In February of this year, the first earthquake reconnaissance training seminars for pool members were conducted in Wellington, Auckland and Christchurch. The purpose of these seminars was to familiarise pool members with the Reconnaissance Manual, the administration of the Scheme, and the team selection process.

The following are brief notes and headings from the seminars which outline the Scheme and the Manual and which may stimulate the interest of members of the Society in joining the Team Pool.

Flow Charts setting out the decision making procedures for initiation, the provision of resources, and the supporting of an earthquake reconnaissance for earthquakes which occur in New Zealand and those that occur overseas are illustrated in Figures 1 and 2.

TEAM SELECTION

Team selection, size, composition including range of disciplines and special knowledge, the number of teams, and sequence and follow-up, is determined by where the earthquake occurs, the availability and quality of the information on the earthquake and the initial assessments, the likely duration of the field investigation, conditions in the field, and for overseas earthquakes the likely quality and extent of the reporting by professional organisations within the country where the earthquake has occurred.

The policy of the Society regarding preference for earthquake reconnaissance team membership is as follows:

1. All earthquakes: *Team Pool Members*.
2. Earthquakes occurring in New Zealand: *Team Pool Members from outside the devastated region*.
3. Where people or people with specialist knowledge or expertise are not available from the Team Pool: *Society members*.
4. Where people or people with specialist knowledge or expertise are not available from the Society Membership: *Non members*.

Members of the Society, particularly those living outside the Central (Wellington) Region, are invited to apply to become Team Pool members. An application form is included in this copy of the Bulletin. The Team Pool also needs additional members in the disciplines of architecture, building services, social science and natural disaster planning. **The policy of the Society is that only members of the Society can become Team Pool members.**

¹ Masterton (Life Member and Reconnaissance Scheme Organiser)



SCHEME AIMS

TO INVESTIGATE
DAMAGING
EARTHQUAKES THAT
OCCUR WITHIN NEW
ZEALAND AND,
WHERE IMPORTANT
LESSONS CAN BE
LEARNT,
THOSE THAT OCCUR
OVERSEAS

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Purpose of Manual

- Provides Information on
 - Policies
 - Administration Procedures
 - Operational Procedures
 For the organisation of the scheme and the assembly and dispatch of Reconnaissance Teams
- Provides guidance for team members

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Objectives of Earthquake Reconnaissance

- The Advancement of Knowledge concerning the nature and effect of earthquakes on manmade structures
- The development of improved design and technology as a defence against unacceptable effects of earthquakes

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Reconnaissance Scheme Manual

Section 1 Aims & Objectives
Section 2 Administration
Section 3 Operational
Procedures
Section 4 Discipline Field
Guides & Checklist
Appendices

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Manual Appendices

- | | |
|----------------------------------|------|
| 1. MM Intensity Scale | Info |
| 2. Pre-Departure Checklist | Adm |
| 3. Pro-forma Letters | Adm |
| 4. Expenses | Adm |
| 5. Recce Scheme Cmte Duties | Ops |
| 6. Team Organiser Duties | Ops |
| 7. Team Leader Duties | Ops |
| 8. Recce Scheme Membership Rolls | Ops |
| 9. NZ Civil Defence Act | Info |
| 10. Information Sources | Info |

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Appendices (ctd) Field Guides

11. Geoscience
12. Engineering Seismology
13. Geotechnical
14. Engineered Structures
15. Industrial Facilities
16. Lifelines
17. Architecture & Urban Planning
18. Housing & Non-engineered structures
19. Social Impact & Emergency Response
20. Tsunami
21. Building Services
22. Fire

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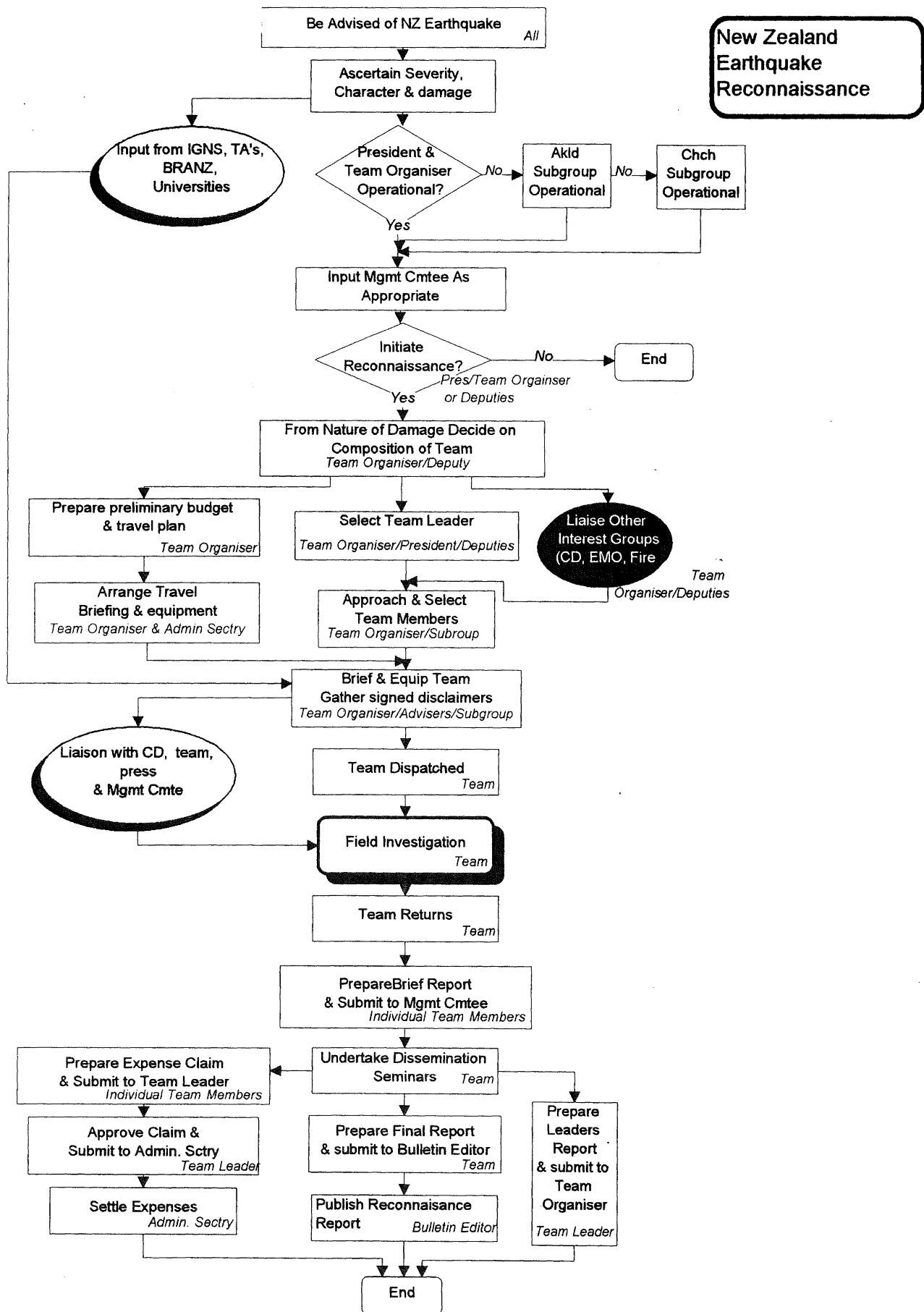


FIGURE 1 Decision making procedure for a New Zealand earthquake reconnaissance

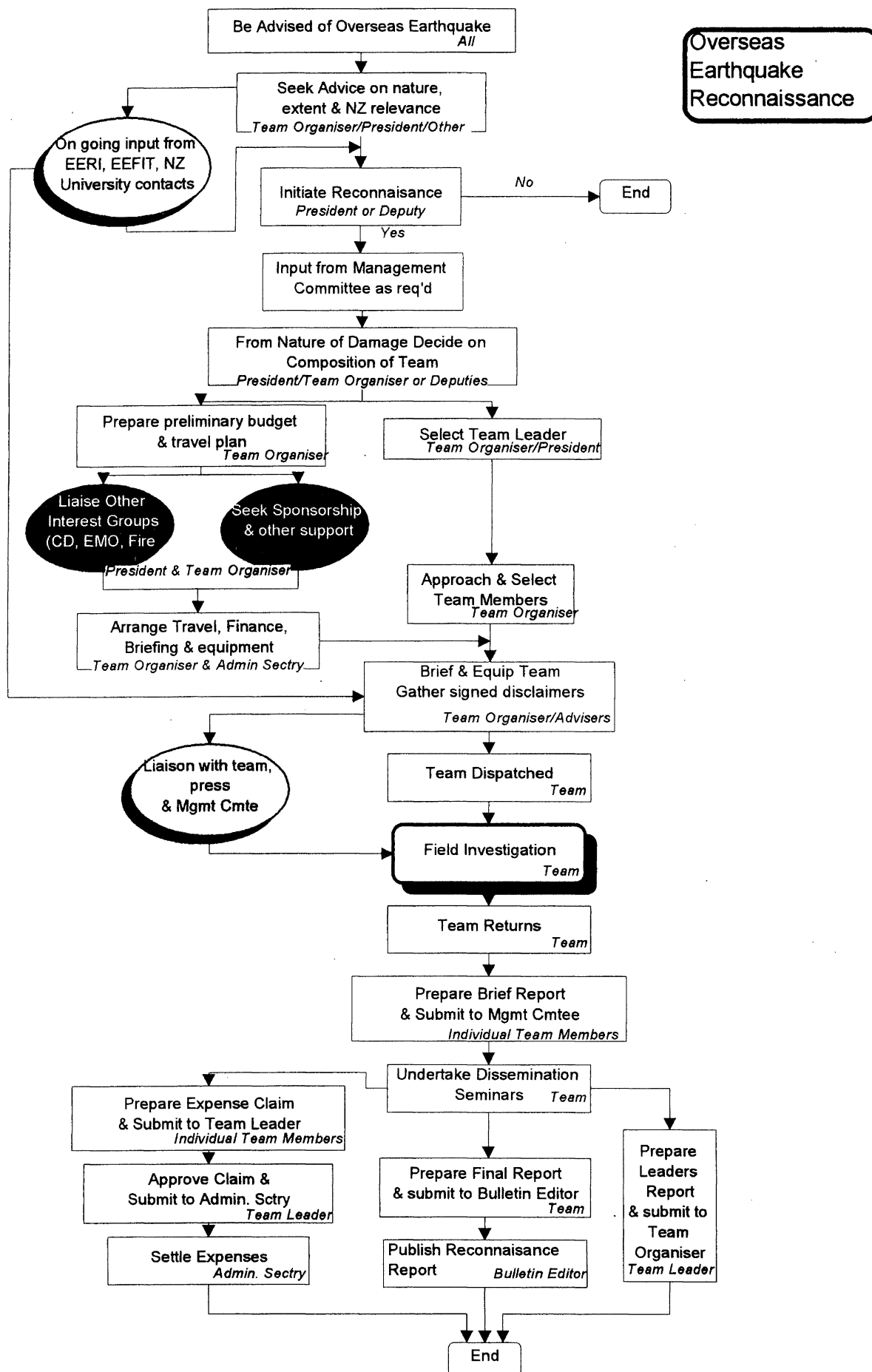


FIGURE 2 Decision making procedure for an Overseas earthquake reconnaissance