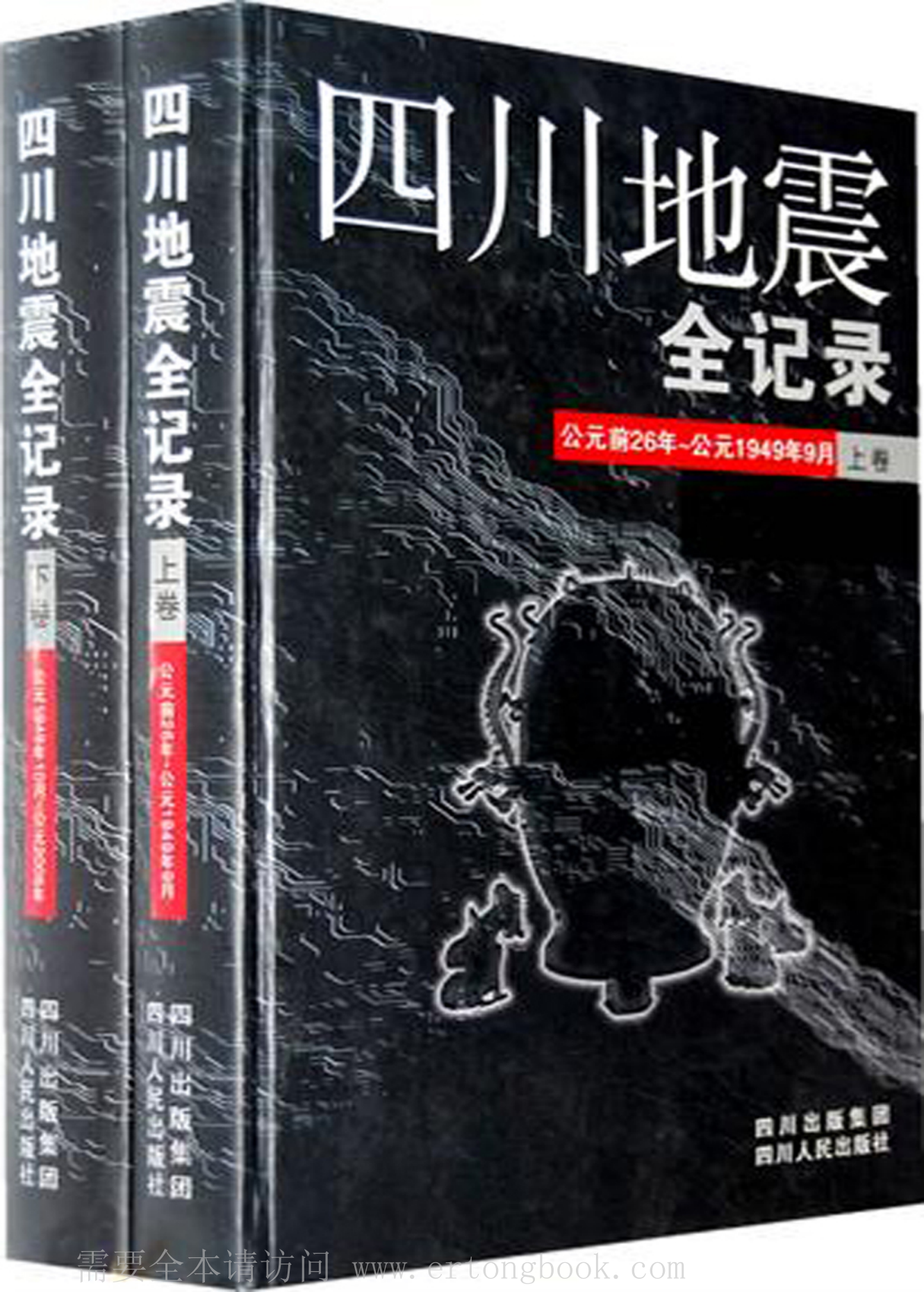


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前 言

根据国务院1977年和1996年、四川省人民政府1978年和1997年关于汇编地震资料和编纂地方志的文件精神，四川省社会科学院和四川省地震局等单位先后完成了《四川地震资料汇编》第一卷、第二卷（1980年、1981年四川人民出版社出版）和第三卷（2000年成都地图出版社出版）的编纂工作。这一套起于公元前26年、止于公元1999年的《四川地震资料汇编》出版以来，受到社会各界的关注，在国家资源开发、生产力布局、城乡建设发展规划、地震科学研究、地震烈度区划、工程建设地震安全性评价、防震减灾和地方志书编纂等方面得到广泛应用，对推动国家的经济发展和防震减灾事业的进步，起到了积极作用。

近30年来，地震工作者和史学工作者在社会各界支持下，又新发掘、收集、整理和编写了一批地震档案资料，地震碑石资料，地震次生灾害资料，地震宏观考察资料，防震抗震、救灾、重建资料，以及地方志和报刊记载的地震资料等等，这为完善《四川地震资料汇编》很有帮助。在科学发展观的指导下，四川省社会科学院、四川省地震局和四川人民出版社等单位的领导和一批专家、学者积极建议并协商研究，就《四川地震资料汇编》第一、二、三卷进行了修改、订正、增补、续编，整合为上下两卷《四川地震全记录》。

四川是中国大陆多地震的省区之一。从有文献资料记载以来，灾害性地震频频发生，给四川人民的生命财产造成了重大损失。特别是2008年5月12日汶川、北川一带发生的8.0级地震，川、甘、陕、渝、滇、宁（夏）等六省、市、区200余县受灾，损失特别惨重，震惊世界。中央以举国之力，全民奋起抗震救灾，把灾害损失减少到最低限度，创造了举世瞩目应对特大地震灾害的经验，赢得了世界各国人民的赞誉。地震灾害是一种自然现象，历史上灾害性地震的发生，让人民付出了鲜血和生命的代价，承受了极大的痛苦。血泪连篇的震灾史料给后人留下了惨痛的教训，同时亦积累了不少可资借鉴的防震、救灾等有益经验。“没有哪一次巨大的历史灾难，不是以历史的进步为补偿的。”

人们目前虽然还不能阻止和准确预测地震的发生，但可以依靠自身的智慧，从历史的教训和经验中，不断总结，研究探索出防震减灾的途径，最大限度减轻未来地震灾害可能造成的损失。

《四川地震全记录》的推出，希望对四川社会经济的发展、促进防震减灾事业的进步、建设和谐社会有所裨益。更冀求各级人民政府、领导干部、部队官兵和公职人员，严格履行国家《防震减灾法》和《四川省防震减灾条例》所赋予的法律职责和义务，认真贯彻“预防为主、防御和救助相结合”的防震减灾工作方针，在编制防震减灾规划、制定完善地震应急预案、实施救助和重建家园过程中，对四川历史上地震灾害分布（特别是凉山、甘孜、阿坝民族地区）、震灾特点（特别是山地、水患次生灾害）、救灾难度等实情有充分的认识和了解，采取积极有效的应对措施，普及地震和防震的科学知识，提高民众的防震减灾意识。“宁可千日不震，不可一日不防”，只有防震意识和措施到位，才能减少或避免震灾损失，造福于四川人民。

编　者

2009 年 8 月

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Foreword

According to the files released by State Council in 1977 and 1996 and the files released by Provincial Government of Sichuan in 1978 and 1997 to publish the compilation on historical earthquakes and local chronicles, editors from Academy Social Sciences of Sichuan Province and Sichuan Earthquake Administration of Sichuan Province published the book, *Compilation of Sichuan Historical Earthquakes* (Volume 1, 2 and 3), successively in 1980, 1981 and 2000. The coverage of historical earthquakes is from BC26 to 1999AD. This book gains widespread concern. It will be helpful to fields such as resource developments, social planning of city and countryside, scientific and technique researches, seismic intensity zoning, earthquake safety evaluation, protecting against and mitigating earthquake disaster and local chronicles editing. The first volume, *Compilation of Sichuan Historical Earthquakes* (Volume 1), was published 30 years ago and more seismic data or materials are found and accumulated. These seismological data include earthquake stone tablets, research reports on secondary disasters and so on. So we decide to publish a new book: *A complete Compilation of Sichuan Historical Earthquakes*.

Sichuan Province is often stricken by strong earthquakes. As we know from historical documents, many strong earthquakes had caused very heavy losses of life and property. The 2008 M8.0 Wenchuan Earthquake had caused extremely heavy loss of life and property and affected more than 200 counties in 6 provinces and cities as well. CPC Central Committee and State Council led all Chinese people to fight against the earthquake disaster and won the respects from the world. During the fighting against the earthquake disaster, more and more data on the historical earthquake had been accumulated. These data are our wealth and will be helpful to the future researches. Although the

earthquakes are not predictable now, our seismological researches will go on. *All Compilation of Sichuan Historical Earthquakes* will be helpful to our social development planning, protecting against and mitigating earthquake disaster, urban and regional planning of Sichuan Province. We hope that persons who are interested earthquake research and other fields will be benefited from reading this book.

Editors

序

我国是世界上遭受地震灾害最为严重的国家之一，而四川省地处我国南北地震带中段，境内龙门山、鲜水河、安宁河三大主断裂带交错分布，呈现地震频度高、强度大、灾害重的特点，致使四川人民饱受地震灾害的侵扰。近代以来，已先后发生1850年9月西昌7½级地震、1870年4月巴塘7¼级地震、1923年3月炉霍—道孚7¼级地震、1933年8月茂县叠溪7½级地震、1948年5月理塘7¼级地震、1955年4月康定7.5级地震、1973年2月炉霍7.6级地震、1976年松潘—平武两次7.2级地震等。2008年5月12日又发生了震惊中外的汶川8.0级特大地震，一时间，山崩地裂，房屋倒塌，道路阻断，满目疮痍，造成了重大人员伤亡和巨大财产损失。

我省多地震的事实，注定了我们将会长期与地震灾害相伴，也一定会在减轻地震灾害的实践中不断进步和发展。“防御和减轻地震灾害，保护人民生命和财产安全、促进经济社会的可持续发展”，这是2008年12月我国新修订的《中华人民共和国防震减灾法》的根本目的，也是各级政府和全社会义不容辞的责任。

地震预报仍是人类尚未攻克的科学难题，依靠科技进步，是人类实现认识地震活动规律的根本途径。多年来，面对地震预报这一科学难题，人们的探究虽然遭遇挫折，却从未放弃。我们还需脚踏实地沿着科学发展观的思路，开展多学科科研工作，而加强基础性的研究是十分重要的。

本着这种理性的思考，在汶川大地震发生后，四川省地震局和四川省社会科学院组织科技人员将1980—2000年陆续出版的三卷本《四川地震资料汇编》进行了修订、增补、续编，重新整合为上下两卷的《四川地震全记录》（公元前26年—公元2009年），在四川人民出版社的热情支持下正式出版发行。我们希望通过它的系统记载、丰富史料，能够成为当前研究四川地震的最完备、最准确的科研基础资料，以此让更多人了解四川地震的历史，探讨和研究地震的规律，增强防震减灾意识，为四川防震减灾工作做出一定的贡献。

四川省地震局
四川省社会科学院
2009年9月

Preface

China is one of the countries that suffered from the most heavily earthquake disasters in the world. There are three big seismic faults, Longmenshan, Xianshuihe and Anninghe in Sichuan Province. These seismic faults form the middle segment of south-north seismic belts. The complex of seismic belts in these regions determines the earthquake active characters with high frequency, great intensity and heavy disaster. According to historical earthquake data, a lot of strong earthquakes occurred in this region, for example, the M7½ Xichuang earthquake in September 1850, the M7¼ Batang earthquake in April 1870, the M7¼ Luhuo-Daofu earthquake in March 1923, the M7½ Diexi earthquake in Maoxian County in August 1933, the M7¼ Litang earthquake in May 1948, the M7.5 Kangding earthquake in April 1955, the M7.6 Luhuo earthquake in February 1973 and two times M7.2 Songpan-Pingwu earthquakes in 1976. These strong earthquakes caused very heavy disasters to the people of Sichuan Province. On 12 May 2008 an M8.0 Earthquake struck the Wenchuan. In very short time it caused mountains crack, the earth and buildings collapse, roads be blocked. This great earthquake caused very heavily properties loss and casualties to people of Sichuan Province.

The seismological evidences show that people in Sichuan Province will be accompanied with earthquake disasters for long time in the future. But the people here will also fight against earthquake disasters and believe that they will be making more progress in earthquake researches. According to the, Earthquake Prevention and Disaster Mitigation Act of the People's Republic of China, Which was revised in December 2008, "the preventing against and mitigating earthquake disasters, protecting people's lives and properties and improving the sustainable development of the social economy are our main goals". At the same time it is also obligatory responsibilities of local govern-

ments at all levels and of whole society in China.

Earthquake prediction is a scientific problem. The development of science and technology will be the only way to understand the mechanism of an earthquake occurring. For many decades in the past, we have faced a lot of difficulties, but still we go on and never give up in spite of some failings of earthquake prediction before. We will pay more attention to the fundamental researches in seismological and interdisciplinary subjects.

The editorial board organized some scientists and technologists from Earthquake Administration of Sichuan Province and Academy of Social Science of Sichuan Province. Based on a series of books, *Compilation of Sichuan Historical Earthquakes* (Volume 1, 2 and 3), which were published separately in 1980, 1981 and 2000, this editorial board revised the original data, supplemented more historical data and especially the data of the 2008 M8.0 Wenchuan Earthquake and rename it "*A Complete Compilation of Sichuan Historical Earthquakes* (from 26 BC 2009 AD)". The editorial board hopes it will be a basic reference book and be helpful to the works for earthquake prevention and disaster mitigation of Sichuan Province, to the seismological researchers and to other researchers in Sichuan Province.

Earthquake Administration of Sichuan Province
Academy of Social Sciences of Sichuan Province
Sichuan Chengdu, October 2009

编辑例言

本书所收地震资料，起自公元前26年，止于公元2009年9月，分为上下两卷。上卷为汉成帝河平三年（公元前26年）至民国三十八年九月（公元1949年9月）的地震资料；下卷为中华人民共和国成立以来（公元1949年10月至2009年9月）的地震资料。上卷主要为历史文献有关地震记载及少数仪器记录资料，下卷包括文献记录、地震台站仪器观测资料和地震宏观考察报告、救灾工作总结、地震调查报告、地震简报、震例总结、地震灾害评估报告等资料。由于上、下卷资料性质不尽相同，编辑体例在基本一致的原则下，也各有不同。

一、上卷所收集的历史文献资料，依据文献记载地震发生年、月时间顺序编排（包括邻省、市、区强震对四川境内的破坏及影响），一次地震有多条文献资料集中编列，有年无月者列于年末，有月无日者列于月末。资料保持原貌，不作地震学的分析、解释和综合。每次地震分别列出震时、震地、震情和注等项内容。

震时：指地震发生的时间（年、月、日），清代以前的地震发震时间，旧历和公历并列。鉴于学术界已习用儒略历换算1582年以前的旧历，故本卷1582年以前的发震时间旧历换算为儒略历，1582年以后旧历换算为格列历（公历）；民国以后地震的发震时间只列公历。同一次地震，有的文献记载时间有误者列于同一地震时间下，在有误的时间后加［?］或注明。

震地：指地震发生的地点、区域或波及影响的地名、地区。一般只标出地震时县的治所地名，个别标注到县治所以下地名；一次破坏、影响和波及较远的地震，则以文献资料记载灾情的破坏影响程度重、轻编列地名。明、清、民国时期府、州、县地方志记载的资料，标明府、州、县治所地名加［ ］表示。有的地震影响波及全省，只标出主要有破坏的地名，其他轻微有感地点未全列出。有仪器记录的地震，标出仪器测定的微观经纬度，或同时标出宏观地名或宏观地名经纬度，供研究参考。

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震情：指地震灾害情况或破坏、影响程度等。明、清时期的文献有的记载了救灾赈恤、恢复重建等资料，亦一并收录。地震灾情资料多保持文献记载原貌，一般不删节或少删节。元代以前的资料多以正史本纪、五行志记载为主，也参考了其他可信记载。明、清时期以实录、档案、正史、地方志记载为主，也参考了部分别史、笔记、诗文集、地震碑石（摩岩石刻）、庙谱、家谱、私家著述和少数报刊资料。民国时期资料多来源于档案、中外报刊、地方志、个人著作、少数调查资料和少部分地震仪器记录资料。文献史料原有脱落者，标□号；误字拟改者，写在（ ）号内；缺字拟补者，写在［ ］号内；有疑问者附加（?）号。对一些破坏性地震收录的地震等烈度线图或地震破坏程度分布图及地震参数等，除少数几幅外，均是后人的研究成果，兹列出可同文献资料互相参阅研究。每条震情资料和图件的来源均注明出处，另在本卷后附详细书目。

注：指注释。地震文献史料所见古地名，简注当时治所和今地名，以表示大致相当的方位。对一些政区变化，属地调整，书目版本和个别人物等需要说明者，酌加注释。

本卷编列有附录。对文献资料未直接记载地震的山崩、地陷、地鸣及次生灾害，少数疑难地震存疑的资料，或后人对历史上发生的强震，逾越多年后作的调查访问及作的图件等，酌情收入附录，供研究参考。

二、下卷主要记录1949年10月至2009年9月发生在四川境内的$M\geqslant4.0$级的地震事件（2008年5月12日汶川8.0级地震后的4.0级余震太多，仅列出$M\geqslant4.7$以上强余震），对邻近省、市、区发生的少数强震对四川境内造成影响或破坏的地震，亦酌情收录。每一地震均照发震时间顺序编排。每一地震事件的基本参数除发震时间在标题中列出外，其他参数均以列表反映。每一地震事件，有地震台站仪器观测资料，又有宏观调查资料的，尽量反映发震时间、震中位置（经纬度、精度和参考地名）、震级、震源深度、震中烈度、震源机制、震害与烈度、等烈度线图、地质背景、宏微观前兆、余震活动、地震预测预报、震灾经济损失、社会影响、应急措施、救助和重建，以及每条资料来源等项内容，没有相关资料的则暂缺。为减少重复，只有仪器资料，无宏观调查资料的地震统一编入“1949年10月至2009年9月四川地震目录（$M\geqslant4.0$）”。

发震时间：统一为北京时间，主要资料取自《四川省地震台网地震目录》和《中国地震年鉴》$M_S\geqslant4.0$级地震目录。

震中位置：主要取自《四川省地震台网地震目录》和《中国地震年鉴》

M_S≥4.0级地震目录。宏观经纬度取自相关的文字资料、考察报告，表中加“（ ）”表示。参考地名写自乡（镇）或县名，个别的写出村寨名。精度取自《四川省地震台网地震目录》：A（1）类震中误差≤5 km，B（2）类5 km<震中误差≤15 km，C（3）类15 km<震中误差≤30 km，D（4）类震中误差>30 km。早期地震台站观测资料确定震中精度与宏观震中偏差稍大。

震级：资料取自《四川省地震台网地震目录》或《中国地震年鉴》M_S≥4.0级地震目录。仪器测定的震级M_L、M_S照原资料标出，不作统一换算；M_L在震级值右下角标出“L”，未标“L”的示为M_S震级；同一地震测定有M_L和M_S的则并列标出；同一地震有几种地震目录列有不同的震级，适当加注，以供研究。

震源深度：取自《四川省地震台网地震目录》和《中国地震年鉴》M_S≥4.0地震目录。宏观震源深度取自相应的考察报告或公开出版物，表中加“（ ）”表示。

震中烈度：取自相应的调查资料、考察报告或公开出版物。烈度的强弱分别在烈度值右上角标出“+”、“-”表示。

震源机制解：取自相应的报告、公开出版物或个人资料，并标明出处。

等烈度线图：取自相应的考察报告或公开出版物，与相应的地震对应，并标明出处。

震害与烈度、地质构造背景等各项资料，分别取自公开出版物、内部报刊、简报、报告、年鉴、志书和少数手稿等，所用资料均原文照录或原文节录，并在右上角加“[ ]”注明出处编号，与资料来源项序号对应。原文中有补入漏字之处以“[ ]”表示，原文有不确切地方，略加括注，以“( )”表示。对多种文献记载不一致之处，也作了注释。

资料来源：对每一地震事件的每一原文资料的来源均标明出处，统一编号排列在本次地震资料之后，编号与行文中的注释号对应，以供研究者检校。有部分地震资料后并附以“主要文献、资料目录”作为出处，以供核查。

编　者

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A Quick Guard to using this book

The interval of earthquake issues in this book, A Complete Compilation of Sichuan Historical Earthquake, is from 26BC to 2009 AD. The book is divided into two volumes. The interval of the first volume is from BC26 to 30 September 1949 AD and the second volume is from 1 October 1949 AD to 30 September 2009 AD.

In the first volume, the earthquake data come from historical documents and a few of them come from the records of earthquake instrument. In the second volume more seismological data are added. These seismological materials or data include following items: the earthquake data in historical documents, results of seismograph, macro-investigation reports of an earthquake, written repots of relieving work, seismic investigation reports, seismic brief repots, earthquake case reports and evaluating reports on earthquake disaster. The editorial style in the second volume is different from the first one because more data are added.

1

In the first volume seismic issues are logged one after another in the order of occurred date. Some of seismic data include earthquakes occurred in other provinces around Sichuan Province. There are many issues describing same earthquake and we log them one after another under this earthquake item. The seismic issue without month is listed in the end of this year, and without day is listed in the end of this month. We try to keep the original forms. Analyses, explanations and comprehension are not included. For each issue of an event, we log time, date, location, damaging situation and some explanation

sentences if they are available.

Earthquake Time

The occurring date of an earthquake is noted in year, month and day. For the issues noting earthquakes before the Qing dynasty, we log it with two forms: the title of an emperor's reign and the Gregorian calendar. For Julian calendar are often used in scientific and technical fields, we log the historical earthquake occurred before1582 with the Julian calendar and after 1582 with the Gregorian calendar. For the earthquake occurred in the period of Republic of China, we only log with Gregorian calendar. For some of earthquake issues, which may be mistaken recorders, we still append it to the main issues and mark a question mark (?) after main issues.

Earthquake location

The epicenter here means a small spot, area or a place and region affected by an earthquake. We mark the place name of an earthquake with the name of county. A few of names are marked out with small town's name. For a relative bigger damaging earthquake, which affects an instance places, we log the place names in order of seismic damage intensity. For the historical earthquake occurred in the Ming Dynasty, the Qing Dynasty and period of Republic of China, we mark the place name of Prefecture, District or County in the square bracket.

Disastrous degree

The disastrous degree means the damage degree. In the period of the Ming Dynasty and the Qing Dynasty, the disastrous degree caused by an earthquake can be measured in money that is recorded in the historical documents. We log the disastrous degree in the original terms. Before the Yuan Dynasty, the historical earthquake data were recorded mainly in history books written in biographical style and Book of Wuxing. At the same times we refer to other books. In the Ming and the Qing dynasty, the historical earthquake data mainly were recorded in the memoir, archives and chorography. We also refer to privately compiled histories, private notes, poet anthology, monumental or building stones, temple genealogy, family genealogy, private notes and a few of papers. In the period of Republic of China, most of historical earthquake data are recorded in the archives, papers both at home and abroad,

chorography, personal book, investigation reports and a few of instrument recording materials. For some of words are missed in the historical documents we use the square to mark it and for the mistaken words we correct it and then put it into a pair of parentheses. For the missed words we add and put the words into the square bracket. For uncertain words, we append it with the question mark. According to the historical earthquake data, seismologist in recent decade years drew the contour of seismic intensity of a damaging earthquake and we log it in this book. We list all preferred files in the appendices.

Notes

Notes mean explanations. For ancient place name, we log it using both place names that the local government was located in and the one still used today. We put some of explanations to the place name if it had a new name due to political region changes. In appendices, the other data about landslides, ground settlements, earthquake sound and secondary disasters are listed. Some uncertain earthquakes, some seismic investigation reports and relative pictures or maps are listed in the appendices as well. These seismic materials will be useful to the seismological researchers.

2

In the second volume, the coverage of historical earthquakes ($M \geqslant 4.0$) in Sichuan Province are from October 1949 to September 2009. We have to list the items of $M \geqslant 4.7$ earthquakes because the sequence of the 2008 M8.0 Wenchuan Earthquake has too many events. Some of strong earthquakes occurred in the nearby provinces and areas are also listed because they make some of damaging effects in Sichuan Province. For each earthquake we listed them according to the order of occurring date and time. The seismic parameters and the other parameters are also listed in a table. The earthquake issue is listed and the macro-investigation written reports on this earthquake, if the field investigation is made, are listed as well. Addition to date, time, epicenter and magnitude, more materials such as hypocenter depth, seismic intensity distribution, focal mechanism solution, seismic damaging degree, geo-seismology ground, macro- and micro-precursor, aftershock activity, earthquake pre-

diction, economical loss, emergency responding measurement, relief and rebuilding work are added in the second book. Some reference materials are appended if it is available. In order to reduce the repeating issues, for the earthquake issue that there is no macro-investigation reports are listed in Sichuan Earthquake Catalogue (M≥4.0) from October 1949 to September 2009.

Origine Time

The occurring time of an earthquake (M≥4.0) is Beijing Time. The earthquake issues come from Earthquake Catalogue of Sichuan Province Seismic Network and China Earthquake Yearbook.

Epicenter

The epicenter parameters come from Earthquake Catalogue of Sichuan Province Seismic Network and China Earthquake Yearbook. Macro-seismic epicenter (Longitude and Latitude) is adopted from investigation reports and files. We put the data in a parenthesis. For the reference place name, we use the name of village, town and county. A few of place names are the name of a stockade village. The precise degree of epicenter is as same as one in Earthquake Catalogue of Sichuan Province Seismic Network and China Earthquake Yearbook. About epicenter location error: A (1) type error ≦ 5 kilometers, 5 kilometer ≦ B (2) type error ≦ 15 kilometer, 15 kilometer ≦ C (3) type error ≦ 30 kilometer and D (4) type error >30 kilometer. In the early time the difference between instrument positioning and macro-investigation positioning is bigger.

Magnitude

The magnitude data come from Earthquake Catalogue of Sichuan Province Seismic Network and China Earthquake Yearbook. Both M_L and M_S magnitude are as same as in the Earthquake Catalogue of Sichuan Province Seismic Network and China Earthquake Yearbook. M means M_S.

Hypocenter Depth

The hypocenter depth data come from Earthquake Catalogue of Sichuan Province Seismic Network and China Earthquake Yearbook. We put the macro hypocenter depth data that come from the investigation reports and files into parenthesis.

Epicenter intensity

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