The very low frequency earthquakes (VLFEs) relation with the 2008's great Wenchuan earthquake

*jin deng

This study reports discovery of very low frequency earthquakes (VLFEs) that occurred 4 h before the 2008 MI=8.0 Wenchuan earthquake. The VLF events swarm is of 35 events, recorded by China seismic monitoring network between 10:00 to 12:00 on 12 May 2008. The VLFEs are characterized by waveform durations of 1000-2000 s, magnitudes of Mw2-4 and focal depths 25-40 km deeper than those of natural earthquakes in the same regions. The VLFs last arrived phase is reflected wave and clearly to be identified in VLFs waveform, as fig.1. The VLF waveforms is from more than one events with its Pg arrival times. The VLFEs swarm can be one of important precursor evidence before the large earthquake.

Keywords: very low-frequency earthquakes(VLF), Low-frequency events, the 2008' Wenchuan 8.0 earthquake

NM/GNH/00/BHZ [-12345] Pc: 2008-05-12 (1:25:1.760 kl h+h			
NM/GNH/00/BHZ [-12345] Pg: 2008-05-12 (m MMMMMMMMmmm	hadabagkaduwedonaandfilanabuwaddaanuudaanudba	high a consideration of the second second second providence of the second s	alanal <mark>a (alan</mark> an menanta) menantakan di metanan dalah sebahan dari kerentakan di k
an and a state of the second s	No.MM. MINING MARKANING MANAGANA ANA ANA ANA ANA ANA ANA ANA ANA	him was a construction of the second second	and a construction of the	htternensk-visto-medickomedicko-menonen
antheodophicantheophicantheophics and an and Marinette Scripter (199		energy for the second	ennemballista (Mala) for Administra far an a barran an a	1989 - Anna an
alle and a second s	an an a character and a character and the second	New Manager and a for a departer of the second s	and an and a second and a second and a second and a second s	etersedd <mark>allall</mark> anterauriktersteretarallallandallanaa
10	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	handre man and a second s	san general general and the general general sector of the	anna an
NX/YCH/00/BHZ [-12345]	Pg: 2008-05-12 0:31:41.470 / ₩=1	MW WWW WWW WWW WWW WWW	-	
JX/XIS/00/BHZ [-12345] heradia/nar/addie/addie/addie/addie/addie/addie/addie/addie/addie/addie/addie/addie/addie/addie/addie/addie/add	Pg: 2008-05-12 0:31:59.320 / W=4	Mayman My Manual Manual	mannan	man Martin
	Martin Martin and Ma	nthe production and the production of the produc	-Walan Marina Manager and Marina M	an a
GS/YDT/00/BHZ [-12345] Wyryddyddyddyddyn yn y	Pg: 2008-05-12 0:34:34.560	Mit WWWWWWWWWW	www.www.www.www.www.www.www.	han hallan hala an
UN/DAI/UU/DBZ [-12345]	Pg: 2008-05-12 0:35:59	NTW MMM MANAMANA	halpharene halpharene and ha	alaanaa dahaa daga ka aanaa ka ahaa ahaa ahaa ahaa ahaa a
YN/FUN/00/BHZ [-12345] Мониру-нидул-налаадагандаг-даргалаластирининалагарди	Pg: 2008-05-12 0:	37:46.570 / 0=) ////////////////////////////////////	Malena and half a second show a second s	An-human MAN years and Alar an
http://www.autophe.com/autophe/a	energeneral and the second and the second and the second second second second second second second second second	AvinWillia Mahamma Mantalar Mantal Ma	New Induction of the second second second	han an an Allaha ha ha ha an
xz/sna/00/BHz [-12345] muhuluppininhalinnennennanturuluppininn	When the the work of the	08-05-12 0:41:36.200 / //=1 www.www.www.ww////////////////////////	hall have been and the second s	here the second s
HI/WZS/00/BHZ [-12345]	Pg: Vm//m/////////////////////////////////	2008-05-12, 0; 42; 48, 480 V, W=1	www.www.www.www.www.www.www.www.www.ww	Martun Martin Marine Martin Martin and
10:25 -	10:36	10:48	11:05	111:11

time/(hour:minutes)