



JOINT PROCEDURE ORDER ON ACTION PLAN FOR "WEATHER/CYCLONE WARNINGS"

**NORTHERN RAILWAY HEAD QUARTERS
BARODA HOUSE
NEW DELHI-110001**

DECEMBER-2018

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NORTHERN RAILWAY
JOINT PROCEDURE ORDER
ACTION PLAN FOR WEATHER/CYCLONE WARNINGS

1.0 SCOPE

- 1.1 This joint circular supersedes all other previous circulars/instructions, if any, on the above subject & comes into force with immediate effect.
- 1.2 The circular is in no way exhaustive and every possible action has to be taken by Railway Officers and staff with prudence and promptitude to safeguard the railway property and ensure the safety of travelling public during such occasions.
- 1.3 This Railway comes under influence of the South West monsoons. There are four important ghat sections in Ferozpur division i.e. Pathankot-Jammu Tawi (PTK-JAT), Jammu Tawi-Katra (JAT-Katra), Pathankot-Jogindar Nagar (PTK-JNDX) & Banihal-Baramulla (BAHL-BRML) , two Ghat sections in Ambala division i.e. Chandigarh-Kalka (CGD-KLK) & Kalka-Shimla (KLK-SML) and two ghat sections in Moradabad division i.e. Najibabad –Kotdwar (NBD-KTW) & Haridwar-Dehradun (HW-DDN). These ghat sections are prone to heavy rainfall, which needs careful and special attention in monsoon season. A number of sections are prone to storms, cyclones and landslides during rainfall which can affect the safety of travelling public and also result in disruption of traffic and communication. This warrants action to be taken by Railway officials who are enjoined to be alert and take prompt action.
- 1.4 The five divisions of this railway i.e. Ferozpur, Ambala, Delhi, Moradabad & Lucknow spread over the Geographical jurisdiction of eight states i.e. Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Delhi, Uttrakhand, Rajasthan & Uttar Pradesh and one union territory of Chandigarh .
- 1.5 Disruption of traffic can take place due to heavy rains, storms, cyclones and landslides. This joint circular gives the important guidelines in regard to receipt and transmission of the warning messages and action to be taken immediately for the safety, security and comfort of passengers, covering the two aspects of normal weather warnings (pertaining to heavy rains) and cyclones warnings.
- 1.6 A copy of this Joint circular should be available in each Control office, Station Masters Office and with all Engineering and other Divisional officers, Sub divisional ADEN,s and Permanent Way, Works, Bridge Inspectors, Traffic Inspectors and inspectors of concerned departments.

2.0 WEATHER WARNING MESSAGES:

2.1 Arrangements exist with the Meteorological Department, Government of India for issuing fax and e-mail, whenever heavy rainfall or cyclone/storm/gales are expected, the conditions under which warnings are issued are detailed below:

- a) Amount of rainfall considered dangerous - 70 mm and above in 24 hours.
- b) Wind velocity considered dangerous – 65 Km per hour and above.
- c) Period when warning will be given – throughout the year.

2.2 Terminology Used in Meteorological Bulletins regarding Cyclones:

2.2.1 Cyclones

<u>Type of Disturbance</u>	<u>Associated wind speed</u>	
	<u>Knots</u>	<u>KMPH</u>
Low pressure area	less than 17	30
Depression	17-27	30-50
Deep Depression	28-33	51-64
Cyclone Storm	34-47	65-90
Severe Cyclonic Storm	48-63	91-120
Very Severe Cyclonic Storm	64-119	121-220
Super Cyclonic Storm	>120	> 220
(1 knot = 1.85 KMPH)		

2.2.2 Intensity of Precipitation:

<u>Rainfall amount (in mm, in 24 Hrs)</u>	<u>Description</u>
Less than 1	Light rain
10 to 30	Moderate rain
31 to 60	Rather heavy rain
61 to 120	Heavy rain
>120	Very heavy rain

2.2.3 Spatial Distribution:

The area over which, the phenomenon like rainfall is expected to occur;

- Isolated (At one or two places) : 25% or less of the total area under consideration.
- At few places (Scattered) : between 25% & 50% of the total area.
- At many places (Fairly widespread) : between 50% & 75% of the total area.
- At most places (Widespread) : more than 75% of the total area.

3.0 Weather Warnings.

3.1 Conveying messages by Indian Meteorological Department

The various IMD regional centres will issue heavy rainfall warnings or cyclone warnings to the Headquarter Engineering Control, Baroda House New Delhi by fax and email. Further, the Indian Meteorological Department is updating the weather warning messages in their official web sites regularly, which can be watched in case of any doubt or their duty officer can be contacted over phone. Efforts will also be made by Chief Bridge Engineer with the Indian Meteorological Department that they send the group message to different Headquarters Controls and concerned Divisional controls/authorities.

3.1.1 Web Site Addresses and phone no's of Indian Meteorological Departments:

S. No.	IMD Centre	Website/e-mail Address	City Code	Telephone No's	
1	New Delhi	www.amssdelhi.gov.in	011	24629096, 24623537	24642591
2	Chandigarh	www.chdmausam.org	0172	2629981 & 84	09417777557 2688585
3	Shimla	www.weathersshimla.gov.in metcentresml@yahoo.co.in metcentresml@gmail.com	0177	2626211(Fax) 2626976	09816127668
4	Lucknow	http://amssdelhi.gov.in/Nigam/ MCLUCKNOW mclkn@yahoo.com	0522	2436603 (Fax) 2435406 2436301 (Fax) 2436283 2436790 2432121	09453019406
5	Dehradun	www.amssdelhi.gov.in/NIGAM/ MCDDN mcdehradun@yahoo.co.in	0135	2660434 2660900	09412056025 (Director)
6	Sri Ganganagar	Imd.gov.in.wrsngn@gmail.com	0154	2472810	
7	Srinagar	lotusladakh@gmail.com	0194	2430318 2430112 2430115	09419019558

3.2 Dissemination of Messages within Railway:

On receipt of Weather/Cyclone warning messages from the Indian Meteorological Department regional centre in Engineering control (CMTS) of the Baroda house, the message will be given to Central control (Traffic Control) in COM office, Baroda House. CMTS will also relay message to all Engg Control of Divisions.

3.2.1 Headquarter engineering control, Baroda House:

On receipt of weather/cyclone warning message(s), the headquarter engineering control will take message(s) about the cyclone warning from MET department and will relay it /them to its Divisional Engineering Control and other controls in HQ office on phone . In addition, physical copy of verbatim message will be given in all controls located in Baroda House. However, for divisional controls, verbatim message will be relayed through E mails and/or by other suitable means. Message can also be given through SMS to all controls. It is the responsibility of these controls in their turn, to inform the Officers, Supervisors and all concerned pertaining to their departments for taking necessary steps for meeting any eventualities. They should record the names and designations along with the time and date to whom the message has been communicated.

3.2.2 Action by the Divisional Control office:

- i) The controller of the Divisional Engineering Control office shall give the copy of message to all controls of the section control of division i.e. Operating Control, Traction Power Control, Traction Loco Control, Security Control, Commercial Control, Electrical Control and Test Room. It is the responsibility of these controls in their turn, to inform the Officers, Supervisors and all concerned pertaining to their departments for taking necessary steps to be in readiness for meeting any eventualities. They should record the names and designation with the time and date to whom the message has been repeated. The Controller of the Divisional Engineering Control shall also give message to concerned battalion on National Disaster Response Force (NDRF). The Section Controller shall repeat the message to Station Masters of section likely to be affected and record the names of Station Masters on duty to whom the weather warning has been repeated.
- ii) When land line communication fails, the facility available on VHF sets at stations/CUG mobile phones including satellites phones as the case may be shall be made use of to disseminate the warning to all concerned. High priority should be given for disposal of cyclone messages.

Note:

- a. The preamble of the weather/cyclone warning message and the text as received from the Meteorological Department should be reproduced verbatim in the text as shown below:
Regional Meteorological Centre..... (Here enter the name of the Meteorological Centre)
XXW/000 (insert whichever class is used by the Meteorological Department) (insert time of the original message) dated..... (Date of the original message) reads..... (Reproduce the text of the meteorological message verbatim).
- iii) Additionally message should also be passed on through SMS on CUG mobile phones to all concerned.
- iv) A register should be maintained in Control Offices of each department i.e. Operating, Engineering, Commercial, Electrical etc. showing full particulars of the receipt and action

taken on the weather/cyclone warning messages, showing the date and time of receipt of warning message, the full text of the message and the date and time of dispatch or telephonic advices to the officials concerned and the names of the Station Masters on duty to whom the message has been repeated.

3.3 Action by Station Master:

3.3.1 Intimation to staff:

On receipt of weather/cyclone warning or advices from the section controller, the Station Masters should take the following action:-

- i) The weather/cyclone warning/advices will be communicated by respective Controls to officers and supervisors pertaining to their departments for taking necessary steps, as brought out in sub-paras 3.2.1 & 3.2.2, above.

In case of inability of any divisional control other than the Section Control (traffic department), to contact its officers/supervisors headquartered at a location other than the divisional headquarters, the said divisional control will bring this aspect to the notice of concerned Section controller. Such a Section controller will inform the on duty SS/SM/ASM of the concerned station. The on duty SS/SM/ASM of such station would in turn inform the “designated official” of that department. In case the SS/SM/ASM also is unable to contact the designated official, as above, he would inform any other official who is conveniently available to receive such information. It shall be the responsibility of such designated/other official to inform other officers/officials of his department about the situation. In case the SS/SM/ASM, too, is unable to contact any such official he shall inform the Section Controller about the same who would then take up the matter suitably for further necessary action. A proper record shall be maintained in this context.

It shall be the responsibility of the respective departments to provide a consolidated list of all such “designated officials” along with their contact numbers to the Traffic department in the divisional control office. Such details to the extent they are relevant should also be provided to the SS/SM in charge of various stations outside the divisional headquarter where their officials are headquartered. The responsibility for correctness of the details provided in such a list shall rest with the respective departments.

The instructions as above shall also apply in case of SSE/Works of the Engineering department. It shall be the responsibility of SSE/Works to advise residents of the railway colony in the vicinity to take all necessary precautions and also to be in readiness to move to safer places wherever there is likelihood of inundation. He will also take immediate action to ensure that enough drinking water is stored in the overhead storages. He should also alert all occupants of Railway colony to be in readiness for rendering any assistance to the Station Master in case of emergency. The Station Master will inform the sectional

SSE/Pway and explain to him the contents of the weather warning message and obtain his acknowledge.

- (ii) In case SS/SM has to inform the designated official of a department, a register should be maintained by SS/SM in the Performa given below:

Date and time of receipt	Text of Message in full	Name and Designation of the official to whom message was repeated	Signature of the Station Master	Actual weather condition

The Office Copy of the message on which an acknowledgement has been taken should also be pasted in the register.

3.3.2 Precautions to be taken by Station Master, Loco pilot/Assistant loco pilot & Guard-regarding Control of trains during storm and strong wind:

- (i) When the warning message forecasting cyclone, storm or strong wind has been received from the Meteorological Department and/or there is reasonable doubt that severe storm is going to break out endangering the safety of passengers, trains etc., the Station Master, will regulate trains. Regulation of trains should be done in consultation with section controller and, only in case the communication with control is disrupted, the station master will consult train crew and guard through VHF set or by memo, where possible and also refuse to grant line clear to a train coming to his station until storm abates and he considers safe for the movement of trains.
- (ii) In spite of the action outlined above, should the Loco pilot and guard be still caught on run in a storm and high winds of an intensity which in their opinion are likely to endanger the safety of passenger train, they should bring the train to halt with least delay, avoiding such stoppage at places like sharp curves, high embankment, cuttings and bridges, protect the train as per G&SR and try and contact the nearest Station Master. Guard should advise the passengers to keep all the shutters of the train open to avoid the risk of overturning of the train. The train could be re-started in consultation with guard only after the storm and high winds abate and it is considered safe to proceed. In such cases, discretion of the Loco Pilots and Guards who know the section is of utmost importance giving paramount importance to the safety of passengers. Also the restoration / starting of train should be advised to train crew after taking a message based on input from IMD through control.
- (iii) During thick foggy or tempestuous weather or dust storm or mist which render it difficult or impossible for the Loco pilots to see signals concerned and where there is doubt or suspicion of the condition of a run through passing train or observation made that the block section in the rear might have been affected or obstructed during the passage of the train, the station master, loco Pilot/ Assistant Loco Pilot & Guard shall observe the relevant circulars and G & SR provisions as applicable in such conditions. A caution order as appropriate should also be issued if so warranted.
- (iv) The DDMC in charge should co-ordinate with various officials of state government administration viz. Revenue Officers, Collector, Sub Collector etc. of the area for seeking their assistance in arranging adequate supply of food packets, pure drinking water to the stranded passenger either in the mid section or at any station, in case of need. He should also co-ordinate with local hospitals and medical practitioners for necessary assistance.

However, till such time the DDMC starts functioning, such a responsibility will fall upon the SS/SM in charge of the station and/or the on duty ASM.

- (v) AC loco pilots shall stop the train if considered unsafe to run the train till such time he feels comfortable and safe to run (stopping of train on bridges, steep gradients and flood prone locations may be avoided). In case of cyclone, windows of loco may be kept open to allow passage of air.
- v) At stations where no Engineering official like JE/SSE/SE/ADEN is posted, Sectional ADEN and SSE/Works will guide the SS/SM/ASMs as to how to take reading of anemometers, installed in ASM's rooms. The SS/SM/ASM should take readings of the anemometers, where installed in ASM's room, at an interval of six hours as per the pro forma below and record the same in the register meant for this purpose.:

Date	Time	Recording of Anemometer	Signature

3.3.3 Action by ADEN

- i) On receipt of cyclone/weather warnings, the ADEN will alert all his staff to be in readiness to meet any eventuality. He should also ensure that all the loose fastenings including sheets, tiles etc. of the station buildings as well as the residential quarters in the places likely to be affected are secured properly. He will also alert the residents of the Railway Colony to take all precautions and be in readiness to move to safer places in emergencies.
- ii) He will exercise discretionary checks as required to ensure action by SSE/P. Ways & SSE/Works so that they are alert and active and be constantly in touch with control office as required.

3.3.4 Action by SSE/P. Way:

- 3.3.4.1 SSE/P. Way, on receipt of weather/cyclone warning should arrange to advise monsoon patrolman/ watchman and gang mates to be extra vigilant. During non-monsoon periods as and when such warning messages are received, the SSE/P. Way will introduce patrolling as soon as possible and also post watchman at all vulnerable locations and bridges by day as well as by night for a period extending up to 48 hours beyond the period specified in weather/ cyclone warning message.
- 3.3.4.2 The SSE/P. Way should be out in his section as far as possible by trolley during the period of warning and 48 hours beyond. When there is sudden cloud burst even during non-monsoon periods, emergency patrolling should be introduced duly informing the Station Masters on the section patrolled.
- 3.3.4.3 The SSE/P. Way should contact the section control as well as Engg control frequently to keep the Section Controller informed about the site conditions and have their trolleys always available with them for moving to sites of breaches etc.

3.3.5 Action by Gang Mate:

On receipt of advice from Station Master or P Way in charge , the Gang mate should take the following action:-

- 3.3.5.1 During the fair season, the mate should depute two reliable gang men provided with Patrolmen's equipment for patrolling the block sections on either side and for alerting the intermediate gang-mates.
- 3.3.5.2 During the monsoon period, the mate of the station yard gang should send two gang-men in opposite directions to alert intermediate Gang-mates, Patrolmen and Watchmen.
- 3.3.5.3 For guidance of Loco Pilots and Guards, the sections which are vulnerable from safety point of view where the trains should not be stabled such-as curves, high embankments, cuttings etc. should be identified by Kilometre Numbers and to be communicated to Loco Pilots and Guards for their information and their guidance.

4.0 Cyclone Warning

Action to be taken by various officials for dissemination of Cyclone warning has already been detailed in **Para no. 3.0.above**. However few additional supports which may be further required, are detailed in this Para.

4.1 Issue of Cyclone warning by I.M.D.:

- 4.1.1 The cyclone warning will be issued by IMD in two stages. The first stage warning is issued as soon as the cyclone storm is located at such a distance that is expected to cause bad weather during the next 48 hours. This is followed by second stage warning message wherein there is actual threat of cyclone over the area. Subsequently also, messages giving the latest cyclonic situation are issued by the cyclone warning centres, till the danger to the area is over.
- (i) Chief Controller on duty in HQ central control Baroda House/New Delhi should take immediate action as laid down in Para 3.2.1 above. He should also intimate the cyclone warning and alert the Chief Controllers of the Divisions over which the cyclone is expected to pass. The central control will also immediately inform all Controls in the Headquarters office regarding the cyclonic storm and action being taken by the Division to tackle the situation.
- (ii) On receipt of cyclone warning message, the COM will set up an emergency cell in Headquarters, if necessary, manned by Officers/Sr. Subordinates, round the clock. For emergency control cell Staff/officials will be drawn from various departments, Operating, Engineering, Electrical Engineering, S&T, Mechanical, Commercial, Security etc. The officials on duty in the emergency cell will observe the messages in the official web site of IMD till the De-warning message is received. On observing the cyclone bulletin, the contents of the bulletin should be relayed to all concerned as per Para 3.2.1 and alert the concerned Divisional Controllers for taking action as per Para 3.2.2.

- (iii) A register should be maintained in the emergency cell showing the full particulars of the cyclone warnings received and cyclone bulletins broadcast/telecast by A.I.R. (All India Radio)/ various news channels on television and dissemination to various officials.
- (iv) In order to avoid any mishaps or danger to passenger trains and to avoid marooning to passengers, the COM or an officer acting on his behalf will issue instructions to all concerned for either cancellation or regulating the trains which are likely to be affected by the cyclone in the time when cyclone warnings are received.

4.1.2 Action by Divisional Control Office:

- (i) On receipt of cyclone warning message, the Controller of the Divisional Engineering Control will immediately send a copy of these warning messages to all controls of the division, test room and Operating Control who will advise all SMs on duty of the concerned section.
- (ii) On receipt of cyclone warning message, the Sr. DOM/DOM will take similar action as in COM Office as indicated in Para 4.1.1 (ii, iii, iv) above.
- (iii) The Section Controller will also ascertain from the station the trains likely to be affected and arrange to regulate the trains as the situation may demand.
- (iv) S&T Control and Test room shall monitor damages to S&T gears in affected area and will keep communication links active with the help of Rail Tel and CUG operator.

4.1.3 Action by Traction Power Controller:

The Traction Power Controller of the division should immediately repeat the weather/cyclone warning message verbatim on Control telephones to all concerned ADEE, OHE/ PSI Depot in charge of the section likely to be affected for taking adequate steps so as to be in readiness for meeting any eventualities, and then circulate the contents of the message to the officers concerned in Divisional Headquarter office. The TPC shall always be in a state of readiness to take quick and prompt action to tackle the situation. He will keep continuous liaison with the field officials, Headquarters officers, apart from the neighbouring divisions, for seeking help as the circumstances warrant.

- (i) The ADEEs will be in their respective Headquarters. Their further movements depending upon the damages caused to OHE/PSI installations due to cyclone will be guided by Sr. DEE/TRD.
- (ii) All Senior Supervisors and Officers of the TRD branch should also keep the TPC informed of their movements. These instructions also apply to other key personnel.

4.1.4 Action by OHE/PSI Depot in charge:

- i) The OHE/PSI depot in charge on receipt of Weather/ cyclone warning shall be in a state of readiness to meet any emergency for arranging emergency staff to be vigilant and be available in Headquarters. They shall be in readiness to move at a short notice.
- ii) Keep all the breakdown vehicles such as tower cars, trucks, jeeps, motor trollies, wiring train etc. in good condition and keep stock of good amount of diesel. Head lights of all break down vehicles to be kept in good working condition including spare lamps.
- iii) Ladder trollies, Breakdown T&P, axes, saws, ladders and emergency tools with full components to be kept ready
- iv) Temporary masts to be identified and check for availability of complete assembly and ready to use. All the OHE breakdown materials like temporary masts, conductors, insulators, fittings shall be loaded into break down vehicles and kept ready.
- v) In case of any RC communication/SCADA failures, switching stations to be identified and manning to be arranged on need basis.
- vi) Sufficient generator sets, portable flood lights, lighting arrangements for tower car and trucks to be procured and kept in good condition by every TRD Depot.
- vii) Walkie Talkie sets to be kept in good charging condition, emergency telephones to be kept ready.

4.1.5 Electrical general services wing of the division shall ensure the following to be in readiness:

- a) Sufficient stock of fuel available to run DG sets for 24 hrs.
- b) At least 2 portable DG sets at each depot in good condition.
- c) 4 Nos. Of portable weather proof tents including requirement of Electrical and S&T staff.
- d) List of Contractors capable of providing DG sets with operators at site and their telephone numbers and arrangements for deployment at short notice.

4.2 Action to be taken by the Station Master, Loco pilot & Guard:

4.2.1 Regarding control of Trains:- On receipt of cyclone warning, the Station Master, Guard and Loco Pilot shall take immediate action as outlined in Para 3.3.2 to protect the passengers and the Railway properties.

4.2.2 Regarding intimation to staff:- The weather/cyclone warning/advice will be communicated by respective Controls to officers and supervisors pertaining to their departments for taking necessary steps, as brought out in sub-para 3.2.1 & 3.2.2, above.

In case of inability of any divisional control other than the Section Control (traffic department), to contact its officers/supervisors headquartered at a location other than the divisional headquarters, the said divisional control will bring this aspect to the notice of concerned Section controller. Such a Section controller will inform the on duty SS/SM/ASM of

the concerned station. The on duty SS/SM/ASM of such station would in turn inform the “designated official” of that department. In case the SS/SM/ASM also is unable to contact the designated official, as above, he would inform any other official who is conveniently available to receive such information. It shall be the responsibility of such designated/other official to inform other officers/officials of his department about the situation. In case the SS/SM/ASM, too, is unable to contact any such official he shall inform the Section Controller about the same who would then take up the matter suitably for further necessary action. A proper record shall be maintained in this context.

It shall be the responsibility of the respective departments to provide a consolidated list of all such “designated officials” along with their contact numbers to the Traffic department in the divisional control office. Such details to the extent they are relevant should also be provided to the SS/SM in charge of various stations outside the divisional headquarter where their officials are headquartered. The responsibility for correctness of the details provided in such a list shall rest with the respective departments.

The instructions as above shall also apply in case of SSE/Works of the Engineering department. It shall be the responsibility of SSE/Works to advise residents of the railway colony in the vicinity to take all necessary precautions and also to be in readiness to move to safer places wherever there is likelihood of inundation. He will also take immediate action to ensure that enough drinking water is stored in the overhead storages. He should also alert all occupants of Railway colony to be in readiness for rendering any assistance to the Station Master in case of emergency.

4.2.3 Action by Engineering officials at site:- Engineering officials of the section concerned, viz, ADENs/ SSE(P-Ways)/ SSE(Bridges)/ SSE(Works) and Gang-mate will take immediate action as detailed in Para 3.3.2 (vi), 3.3.3 and 3.3.4 above.

4.2.4 Action to be taken by Traffic Officers nominated by D.R.M. in the case of trains held up en-route or at starting stations due to cyclone:-

4.2.4.1 After a cyclone warning is given, the Officers nominated by the DRM of Division, will be available in the Divisional Control Office and take decision with regard to diversion and cancellation of trains or organize transshipment of passengers in the event of breaches in the section, in consultation with the zonal Headquarters.

4.2.4.2 In case of imminent cyclone threat, the nominated traffic officer will decide on cancellation of trains running through the cyclone zone and ensure regulation of trains at suitable places where catering arrangements are available for the benefit of travelling public as far as operationally feasible. Efforts should be made to ensure that no passenger train is allowed to be marooned under any circumstances.

4.2.5 Action to be taken by Senior Traffic Officer nominated by DRM:

- i) DRM shall depute a commercial officer for opening an enquiry office with a public address system on the platform of the nearest station to be decided by the nominated officer to relay the information regarding the stranded trains, relief operations, transhipments and supply of food packets etc. Necessary care should be taken to avoid creating a scare among the waiting passengers or general public gathered in the area and the announcements should be carefully worded.
- ii) DRM shall depute the nominated sectional CMI/CTI for the section (in case, such official are not available at the place of occurrence, then another official should be nominated from the divisional level) for opening an enquiry office with a public address system on the platform of the nearest station to be decided by the nominated official to relay the information regarding the stranded trains, relief operations, transhipments and supply of food packets etc. These staff should be pre-nominated and not to be nominated after the disaster. Necessary care should be taken to avoid creating a scare among the waiting passengers or general public gathered in the area and the announcements should be carefully worded.
- iii) He shall collect information from the site and in consultations with the DRM/ADRM, Sr. DOM/DOM & Sr. DCM/DCM arrange for quick transhipment of the stranded passengers by buses from the Road Transport Corporation, in case restoration of through traffic is likely to take longer time. Cleanliness of the disaster site shall be ensured by EnHM/Traffic (Commercial) Department.
- iv) He shall advise about the diversion, cancellation & regulation of trains to central commercial controller. CPRO will take necessary action for dissemination of the information through various media.
- v) DRM shall make arrangements to post a medical officer at Railway stations where trains are stranded and where facilities exist otherwise, he shall approach the District Collector or the local Special Police Officer who will make necessary arrangements in any kind of emergency for medical relief.

4.2.6 Action to be taken by C.P.R.O.- CPRO will coordinate with the departments of the Railway and take suitable action regarding public announcements to be made through Doordarshan, All India Radio and the Press and any other measures as found necessary.

4.2.7 Action to be taken by C.M.D. :-

4.2.7.1 On receipt of request from the officers in charge at site, Medical Personnel shall be posted at the stations where trains are regulated to provide medical facilities to the stranded passengers, as well as staff inoculation should be carried out to prevent outbreak of any epidemics.

4.2.7.2 CMD will also co-ordinate with the emergency officers at site and take suitable steps as required to meet the situation as explained in Para 4.2.5.

4.2.8 Action to be taken by C.S.T.E. :-

Sr. DSTEs of affected Division will co-ordinate with other departments of the Railway by providing telecommunication facilities at site linking Headquarters, divisions, etc. as per the need and feasibility. He will maintain co-ordination with the HQ for provision of voice and Data traffic using V Sat /Data card/ Wi-Fi modem etc.

4.2.9 Subdivisions of Railway in different Meteorological range have been given in **Annexure-I**.

5.0 Management of natural disasters due to Cyclones and Floods:

5.1 Long-term Preparedness.

An effective system of forecasting of the impending disaster due to floods and cyclones does exist. However, long term preparedness is essential to mitigate the risk.

In the following paras, the line of actions by various departments in case of a disaster has broadly been outlined. Each department, Division should draw out its own line of action elaborately, on the basis of these guidelines, taking in to account all aspects of disaster management.

5.1.1 Identification of the risk Zones:-

Civil Engineering department, in co- ordination with civil authorities, CWC & IMD, shall identify the areas prone to natural disasters due to floods and cyclones. A detailed inventory of major infrastructures, such as tracks, bridges, telecommunications, structures etc. which may be affected, shall also be prepared.

5.1.2 Monitoring the quality of constructions:-

Civil Engineering department will review the quality of constructions of tracks, bridge and foundations of houses and ensure that all repairs and new constructions take in to account the proneness of the area to a particular natural disaster. The department shall come out with technical guidelines for structural preventive measures and quality control.

5.2 Action to be taken by Division and HQ

5.2.1 Action to be taken at HQ level

On receiving the first information, all Zonal Disaster Management committee (ZDMC) Members will assemble in emergency control room. ZDMC .I/C will contact to State Disaster Management Committee Members (SDMC) .i.e. Chief Secretary of all States, Railway Board and NDRF etc. ZDMC .I/C will contact with adjoining Railways adjoining Civil Authorities if require. ZDMC .I/C will contact NGOs, Civil Defence Authorities and Private parties. Zonal Disaster Management Committee will monitor the functioning of the concerned Division and assist them. Dy.CSTE/Tele in HQs office will maintain and update contact No's of all such authorities i.e. SDMC and Civil Defence authorities.

5.2.2 Action to be taken at Divisional level

(DDMC) All Members of Divisional Disaster Management Committee will assemble in Emergency Control Room; DRM will also inform to NR HQ & Rly Board of NDRF if services are required to meet the Disaster. DDMC In charge will inform District Collector,

SP, CMHO, Fire Station Officers and other concerned Authorities. In case of Mass casualties In charges of all the Civil Hospitals, Private Hospitals should be asked for Medical Help. Services of NGOs and Civil Defence, Home Guards should be asked. DRM/ADRM and other concerned Officers should immediately rush to the site. In case of Transportation is required by Civil, Army, Police Authorities of the States the same should be arranged.

5.3 Guidelines on Floods:

Railway Infrastructure	Flood Proneness Review
Railway Track Formation (incl. station Yards, bridges/culverts, ROBs/RUBs, etc.	New Construction: Railway Station building should be located in such a fashion that they are above the levels corresponding to a 100 year frequency or the Maximum observed flood levels. Similarly they should also be above the levels corresponding to a 50 year rainfall and the Likely subversion due to drainage congestion.
Buildings housing signaling gears Like RRI, SSI etc.	Government offices buildings should be above a level corresponding to a 25 year flood or a 10 year rainfall with stipulation that all buildings in vulnerable zones should be Constructed on columns or stilts.
Buildings in open line maintenance work centres like loco sheds, Coaching depots etc.	Railway track at levels well above the likely Flood levels.
Station buildings	Existing Infrastructure: Co-ordination with flood/rain forecasting agencies to get early warning so as to Introduce patrolling. Speed restriction etc. as Per the provisions in Railway's SR.
Control room, other important office building, etc.	Inspections of Railway Affecting Works – to be streamlined and timely ensured.
High-rise residential buildings, other important residential buildings	Review of waterways for adequacy and alignment and measures to modify, if Needed.
Railway hospitals	Status Note on the lessons learnt from the Previous flood situations in the past 5 years. Bye-laws for buildings in flood plains. Making existing and new buildings and infrastructure capable of withstanding fury of floods.
	Any other item that railway may like to add.

5.4 General instructions

5.4.1 Floods: Based on the weather forecast warnings regarding impending flood condition, following steps should be taken:

- (i) Bridge watchman to be provided at vulnerable points to inform flow of water.
- (ii) Shifting all personnel and movable equipment around the bank.
- (iii) If time permits sand bag dykes can be constructed to ensure safe passage of trains.
- (iv) Regulate train service till flood recedes.
- (v) Evacuate people on train/ at station and move them to a safer place.
- (vi) Contact Fire brigade, Naval, Army, Air force, Local boat man and arrange divers and boats.
- (vii) With the coordination of local authorities the Engineering officer/supervisor or other supervisors at those stations shall arrange temporary shelter in nearby schools, marriage hall, community centre etc.
- (viii) If necessary, arrange coaches to accommodate the effected temporarily.
- (ix) Seek assistance from voluntary organization and arrange drinking water, food, medicines, etc.
- (x) RPF & GRP will co ordination with local police and shall arrange protection.
- (xi) Keep communication with divisional control office.
- (xii) When people are marooned by flood, arrange air dropping of food packets, cloths etc, with the assistance of civil administration.
- (xiii) Contact SJAB, local doctors and provide medical care to the affected.
- (xiv) Take all necessary action to provide shelter and other assistance to those affected by floods.

5.4.2 Cyclone / storm:

When a train is caught in a cyclonic storm at mid section/ station:

- (i) Stop train clear to cutting, bridges and embankments.
- (ii) Guard, Driver and other Railway staff on train shall open all doors and windows of all coaches.
- (iii) Station Master shall not start trains when the wind velocity exceeds the permitted level
- (iv) Make announcement frequently to warn the public about the storm/ cyclone.
- (v) Take all necessary action to provide shelter and other assistance to those affected by cyclone and storm.

5.5 Forecasting:-

Advance warning giving adequate notice period is available in case of floods and cyclones. The flood and weather forecasting messages are published in flood bulletins daily by the Chief Engineer of the concerned state in co - ordination with C.W.C (Central Water Commission) and I.M.D. Similarly cyclone warning message are also issued by the I.M.D. (Indian Meteorological Department). Arrangements exist with the Meteorological Department Govt. of India for issuing weather warning messages, from its offices to Controls as explained in para 3.2. Similar arrangement may be worked out by the Chief Bridge Engineer N Railway, with the State authorities for communication of floods warning messages. All India Radio, Doordarshan, Private T.V. Channel also brood cast floods cyclones messages frequently to give regular up date of the situation. Information regarding forecasting of heavy rain and cyclone can be obtained directly from the website of the India meteorological department. The address of the official website is – www.imd.gov.in.

Similarly, information regarding flood warning can be obtained from the official website of central water commission (CWC). The address is – [sttp://cwc.nic.in](http://cwc.nic.in)

5.6. Preparedness after forecasting of the disaster:-

5.6.1 Opening of disaster Control Rooms:

Immediately on receiving warning message, of a severe flood or cyclone; Emergency controls shall be opened at the Divisional Control offices and Central Emergency Control at GM office NR, New Delhi. These control rooms shall be manned round the clock by one senior officer from each of the following departments.

- (i) Operating
- (ii) Commercial
- (iii) Civil Engineering
- (iv) Signal & Telecom. Engineering
- (v) Mechanical Engineering
- (vi) Electrical Engineering
- (vii) Medical
- (viii) Store.

These Control Rooms will have state of the art communication systems as well as a channel of communication with C.W.C./I.M.D. and State agencies so that data can regularly be exchanged.

Dy. CSTE/Tele at HQ level and Sr.DSTE at Divisional level will ensure state of the art communication systems.

5.6.2 Medical Department:

- (i) Ensuring adequate stock position of essential medicines-
Health department will review the stock position of essential medicines, disinfectants, first- aid materials and other essential items and move the stock to the divisional hospitals/ health units and also to vulnerable points.
- (ii) Health and civil engineering departments will take measures for prevention of epidemics with facilities like drinking water, sanitation and proper drainage and take adequate steps for disinfection of water bodies in the post- disaster situation.

5.6.3 Telecommunication Department:

Telecommunication Department will provide adequate facilities of wireless communications, satellite phones and fail safe telephone lines in disaster prone areas for ensuring effective communications during disaster. For this purpose the facility of mobile telephones and WLL to be explored.

5.6.4 Electrical Department:

Electrical Department will provide stand by generators at strategic locations, (With adequate fuel) such as hospitals, telecommunication installments etc. It should also keep essential items ready at specific Locations for any emergency.

5.6.5 Transportation Department :

- (i) All concerned Branch Officers of the concerned divisions will make a rough assessment of requirement of essential staff and their area of deployment and inform to their respective control in Head Quarter. The Branch Officers under the overall guidance of DRM or ADRM nominated by DRM shall co-ordinate among themselves for communicating a consolidated position to Central Emergency Control, NDBH, New Delhi accordingly.
 - (ii) SMs of the area which is likely to be affected will ensure storage of adequate drinking water, functioning of petromax lamps, adequate availability of rechargeable torches, match box, fuel for generator sets, functioning VHF sets, charging of stand by batteries and adequate First Aid equipments, in co ordination with the officials of concerned departments.
 - (iii) SM will also ensure that stabled wagons/ coaches/ loads at their station which are likely to roll are chained and sprigged. Special instructions as per station working rules should be strictly followed and confirmed to divisional control.
 - (iv) In order to avoid any mishaps or damage to passenger carrying trains and to avoid marooning of passengers, the COM or an officer acting on his behalf will issue instructions, to all concerned for necessary diversions, cancellation or regulation of trains running through the area likely to be affected by flood/ cyclone.
 - (v) Coaching train should be suitably controlled/ diverted. The controlling of trains should as far as possible, be done where adequate water supply, lighting, catering and medical facilities are available.
 - (vi) All trains, which are caught in the affected area shall be immediately controlled. Action shall be taken by SM/Guard and Loco pilot of such trains.
- All such instructions should be communicated to CPRO for adequate publicity.

5.6.6 Commercial department:-

- (i) Enquiry offices should be opened at important stations with effective communications systems so as to keep up to date relevant information and disseminate this information through the public address system.
- (ii) Arrangement shall be made for food, water, tea and snacks for stranded passengers at suitable places.
- (iii) Arrangement shall be made, in co- ordination with transportation department, for transshipment of passengers if necessary.

5.6.7 Engineering Department:

- (i) A train loaded with the essential items like cinders, boulders, quarry dust, empty cement bags filled with earth/sand etc will be ordered to run in consultation with traffic department to stations close to the areas likely to be affected.
- (ii) Patrolling of the vulnerable locations shall be intensified.
- (iii) Empty flat wagons (BRH/BRN) will be placed at suitable siding (Preferably in goods platform lines with loops) to enable quick loading of earth moving machinery.

5.6.8 Mechanical Department:

- (i) ART/SPART/ARME/SPARMV staff and crane driver will be alerted so that they can be rushed to duties with minimum delay.
- (ii) Drinking water and food items shall be provided on ART / SPART/ ARME/ SPARMV for the rescue staff.
- (iii) All road vehicles irrespective of departments to which these belong, including jeeps, cars, light and heavy material carrying vehicles shall be kept in readiness at

nominated places with adequate fuel and two drivers to move man/ materials /equipments at short notice.

5.6.9 Security Department:

DSC/Sr.DSCs will nominate security personnel at the following places-

- (i) To accompany "relief material" carrying trains when ordered.
- (ii) To help commercial & station staff of major stations to handle public enquiries.
- (iii) At each station when any passenger carrying train is regulated.
- (iv) On heavy vehicles carrying relief materials.
- (v) At major restoration sites after the disaster.

5.6.10 Nomination of officers to man strategic Locations:-

- (i) Each PHOD/Concerned DRM will also nominate the officers to camp at important wayside stations. Such monitored officers will be in readiness to proceed to and camp at given stations at short notice.
- (ii) The staff & officers of Engineering, Electrical and S&T departments will be earmarked at Divisional and HQs level and alerted so that they can proceed to co-ordinate their respective restoration works at a short notice.
- (iii) Light motor trolleys should be arranged and kept in readiness at strategic stations. At least one officer and a few staff should be nominated for each. They should be provided with VHF sets, Satellite phones and mobile phones so that they can accomplish the mission of physically covering the entire affected area and can give "First information of damages and assistance required" promptly. Competent and experienced officers & staff should be nominated for the job.

5.6.11 Monitoring cells

Committees comprising heads of the following departments will be constituted both at Zonal and Divisional level to ensure proper co-ordination during natural disaster:

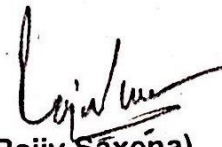
- | | | |
|-----------------|------------------------|-----------------------|
| (i) Medical | (ii) Civil Engineering | (iii) Operating |
| (iv) Commercial | (v) Mechanical Engg. | (vi) Electrical.Engg. |
| (vii) S&T Engg. | (viii) Stores | (ix) Safety |

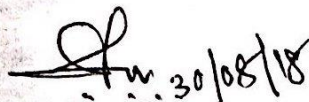
These committees will be responsible for:-

- (i) Detailed planning of movement of food and other relief materials and essential medicines.
- (ii) Keeping effective co-ordination with civil/military authorities and voluntary organizations for rescue operations.
- (iii) Monitor all activities related to disaster preparedness as a multi-disciplinary team.
- (iv) Furnish information and updates to all concerned on a real time basis.

6.0 Contact Details of NDRF Battalions, NDRF (HQ), Disaster Management Division (MHA), NDRF (New Delhi), Snow and avalanche Study Establishment Chandigarh, Geological Survey of India, IMD, CWC, Integrated Defence Staff, Army HQ, AIR HQ & NAVAL HQ are given in Annexure-II to XIII. These authorities may be contacted as and when required. Dy.CSTE/Tele in HQ shall update these contact details once in sixth months periodicity.

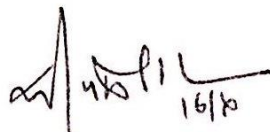

(Naveen Chopra)
PCE

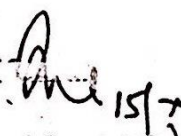

(Rajiv Saxena)
PCOM

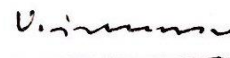

(S.P. Upadhaya)
PCSTE

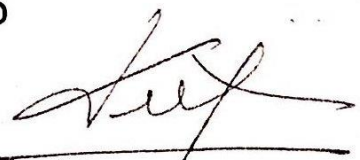

(Rajesh Tiwari)
PCEE


(Arun Arora)
PCME


(SEEMA KUMAR)
CSO


(MANI ANAND)
PCCM


DR. SUNIL KAPOOR
(Dr. Sunil Kapoor)
PCMD


Nitin Choudhary
(Nitin Choudhary)
CPRO


(SANJAY SANKRITYAYAN)
Pr. CSC/RPF/INR
Baroda House
New Delhi

ANNEXURE-I**METEOROLOGICAL SUBDIVISIONS IN DIFFERENT STATE**

Districts	Division	Railway track Section	SSE/P. way	ADENs
<u>DELHI</u>				
Central Delhi	DLI	DSA-GZB DLI-SSB DLI-RE DBSI-ANDIDAL DLI-NDLS	SSE/DLI	ADEN/DLI
East Delhi	DLI	TKZ-SSB ANVT-SBB NDLS-PWL	SSE/NDLS	ADEN/NDLS
West Delhi	DLI	DLI-PWL	SSE/HNZM	ADEN/HNZM
South West Delhi	DLI	DLI-BTI DLI-RE	SSE/SSB SSE/DEE	ADEN/DLI ADEN/DEE
South Delhi	DLI	GHH-FN DLI-RE HNZM-PTNR	SSE/GGN SSE/DEE SSE/HZNM	ADEN/DLI ADEN/DEE
West Delhi	DLI	DLI-BTI DLI-RE	SSE/SSB SSE/DEE	ADEN/DEE ADEN/HNZM
North West Delhi	DLI	DLI-UMB	SSE/DLI SSE/SNP	ADEN/DLI ADEN/PNP
North East Delhi	DLI	DSA-GZB	SSE/GZB	ADEN/GZB
North Delhi	DLI	DLI-UMB DLI-RE DBSI-ANDI DAL	SSE/DLI	ADEN/DLI
New Delhi	DLI	TKZ-SBB ANVT-SBB NDLS-PWL	SSE/NDLS	ADEN/GZB
<u>UTTAR PRADESH</u>				
Baghpat	DLI	DSA-TPZ	SSE/NDLS	ADEN/SMQL
Muzaffar Nagar	DLI	GZB-SRE MTC-KJGY DSA-TPZ	SSE/BTU SSE/SMQL	ADEN/MUT ADEN/SMQL
Meerut	DLI	GZB-SRE MTC-KRJ	SSE/TMC	ADEN/MUT
Ghaziabad	DLI	DSA-GZB GZB-CYZ DSA-TPZ GZB-SRE GZB YARD EMU CAR SHED	SSE/GZB-I SSE/GZB-II	ADEN/GZB
Saharanpur	UMB	KNZ-HNC	SSE/JUDW & SRE	ADEN/SRE
Lucknow	LKO	BCY-MUV	SSE/BSB	ADEN/BSB
Lucknow	LKO	JEP Bye-pass	SSE/BSB	ADEN/BSB
Lucknow	LKO	MGS-LOT	SSE/BSB	ADEN/BSB
Lucknow	LKO	MGS-LOT	SSE/BSB	ADEN/BSB
Lucknow	LKO	BSB-ZBD	SSE/BSB	ADEN/BSB
Lucknow	LKO	BSB/ZBD	SSE/BSB	ADEN/BSB
Lucknow	LKO	BSB/ZBD	SSE/JNU	ADEN/JNU

Lucknow	LKO	BSB/ZBD	SSE/JNU	ADEN/JNU
Lucknow	LKO	ZBD-SHG	SSE/JNU	ADEN/JNU
Lucknow	LKO	ZBD-FD	SSE/SHG	ADEN/JNU
Lucknow	LKO	ABP-TD	SSE/SHG	ADEN/JNU
Lucknow	LKO	LOT-PBH	SSE/BOY	ADEN/PBH
Lucknow	LKO	LOT-PBH	SSE/JNH	ADEN/PBH
Lucknow	LKO	JNH-PFM	SSE/JNH	ADEN/PBH
Lucknow	LKO	JNH-ZBD	SSE/JNH	ADEN/PBH
Lucknow	LKO	JNH-RBL	SSE/PBH	ADEN/PBH
Lucknow	LKO	PBH-RBL	SSE/RBL	ADEN/RBL
Lucknow	LKO	RBL-LKO	SSE/BCN	ADEN/RBL
Lucknow	LKO	UCR-ON	SSE/DMW	ADEN/RBL
Lucknow	LKO	DMW-DYP	SSE/DMW	ADEN/RBL
Lucknow	LKO	DYP-RBL	SSE/DMW	ADEN/RBL
Lucknow	LKO	UTR-LKO	SSE/II/LKO	ADEN/II/LKO
Lucknow	LKO	UTR-LKO	SSE/II/LKO	ADEN/II/LKO
Lucknow	LKO	BBK-LKO	SSE/II/LKO	ADEN/II/LKO
Lucknow	LKO	BBK-LKO	SSE/II/LKO	ADEN/II/LKO
Lucknow	LKO	UTR-AMG Bye-pass	SSE/II/LKO	ADEN/II/LKO
Lucknow	LKO	LKO-AMG	SSE/II/LKO	ADEN/II/LKO
Lucknow	LKO	ZBD-FD	SSE/FD	ADEN/FD
Lucknow	LKO	FD-BBK	SSE/RDL	ADEN/FD
Lucknow	LKO	FD-BBK	SSE/BBK	ADEN/II/LKO
Lucknow	LKO	BBK-LKO	SSE/BBK	ADEN/II/LKO
Lucknow	LKO	LKO-CNB	SSE/LINE/LKO	ADEN/II/LKO
Lucknow	LKO	LKO-CNB	SSE/LINE/LKO	ADEN/II/LKO
Lucknow	LKO	LKO-CNB	SSE/ON	ADEN/II/LKO
Lucknow	LKO	LKO-CNB	SSE/ON	ADEN/II/LKO
Lucknow	LKO	DMW-ON	SSE/ON	ADEN/II/LKO
Lucknow	LKO	PFM-DMW	SSE/UCR	ADEN/PRG
Lucknow	LKO	UCR-DYP	SSE/UCR	ADEN/PRG
Lucknow	LKO	JNH-PFM	SSE/PRG	ADEN/PRG
Lucknow	LKO	PBH-ALD	SSE/PRG	ADEN/PRG
Lucknow	LKO	PFM-UCR	SSE/PRG	ADEN/PRG
Lucknow	LKO	PRG-PYG	SSE/PRG	ADEN/PRG
Lucknow	LKO	PFM Bye-pass	SSE/PRG	ADEN/PRG
Lucknow	LKO	SLN-CIL	SSE/CIL	ADEN/PRG
Lucknow	LKO	PBH-PFM	SSE/CIL	ADEN/PRG
Lucknow	LKO	FD-CIL	SSE/II/SLN	ADEN/SLN
Lucknow	LKO	ZBD-SLN	SSE/SKNR	ADEN/SLN
Lucknow	LKO	ZBD-UTR	SSE/II/SLN	ADEN/SLN
Lucknow	LKO	SLN-YD	SSE/II/SLN	ADEN/SLN
Lucknow	LKO	SLN-UTR	SSE/NHH	ADEN/SLN
Hardoi	MB	LKO-SPN	SSE/SAN	ADEN/HRI-I
Hardoi	MB	LKO-SPN	SSE/HRI	ADEN/HRI-I
Shahjahanpur	MB	LKO-SPN	SSE/RAC	ADEN/SPN
Shahjahanpur	MB	LKO-SPN	SSE/SPN	ADEN/SPN
Sitapur Shahjahanpur	MB	RAC-SPC	SSE/SPC	ADEN/HRI-II
Unnao Hardoi	MB	BLM-ON	SSE/SFPR	ADEN/HRI-II

Hardoi	MB	BLM-SPC	SSE/BLM	ADEN/HRI-II
Bareilly	MB	MB-LKO	SSE/BE	ADEN/BE
Rampur Moradabad	MB	MB-LKO	SSE/RMU	ADEN/BE
Badaun Bareilly Sambhal	MB	BE-CH	SSE/CH	ADEN/CH
Aligarh Bulandshah ar Badaun Sambhal	MB	CH-ALJN	SSE/RG	ADEN/CH
Moradabad Sambhal	MB	MB-CH RJK-SHTS	SSE/RJK	ADEN/CH
Moradabad	MB	MB-LKO MB-SRE MB-CH MB-GZB MB-KPV	SSE/MB	ADEN/HQ/MB
Moradabad Amroha	MB	MB-GZB	SSE/AMRO	ADEN/HPU
Hapur Ghaziabad	MB	MB-GZB	SSE/HPU	ADEN/HPU
Bulandshah arHapur	MB	KRJ-MTC	SSE/BSC	ADEN/HPU
Moradabad Bijnore	MB	MB-SRE	SSE/DPR	ADEN/NBD
Bijnore	MB	MB-SRE	SSE/NBD	ADEN/NBD
Bijnore	MB	GJL-MZM	SSE/BJO	ADEN/NBD
Haridwar	MB	MB-SRE	SSE/RK	ADEN/RK
Dehradun	MB	LRJ-DDN	SSE/DDN	ADEN/RK
HARYANA				
Ambala	DLI	DLI-UMB	SSE/KKDE	ADEN/KUN
Fatehabad	DLI	DLI-BTI	SSE/JHL	ADEN/JHI
Kaithal	DLI	NRW-KKDE	SSE/KLE	ADEN/KUN
Palwal	DLI	DLI-PWL	SSE/FDB	ADEN/TKD
Faridabad	DLI	DLI-PWL	SSE/FDB	ADEN/TKD
Gurgaon	DLI	RE-DLI GHH-FN	SSE/GGN SSE/DEE	ADEN/DEE
Jind	DLI	DLI-BTI	SSE/JHI	ADEN/JHI
Rewari	DLI	RE-DLI	SSE/GGN	ADEN/DEE
Rohtak	DLI	DLI-BTI ROK-BNW ROK-PNP	SSE/ROK SSE/GHNA	ADEN/ROK
Jhajjar	DLI	ABO-RE DLI-BTI	SSE/JHI SSE/BGZ	ADEN/ROK
Sonipat	DLI	DLI-UMB	SSE/SNP	ADEN/PNP
Panipat	DLI	DLI-UMB ROK-PNP	SSE/PNP SSE/GHNA	ADEN/PNP
Karnal	DLI	DLI-UMB	SSE/KUN	ADEN/KUN
Kurukshetra	DLI	DLI-UMB	SSE/KKDE	ADEN/KUN
Panchkula	UMB	CDG-KLK	SSE/CDG & KLK	ADEN/CDG&S ML
Panchkula	UMB	KLK-TSL	SSE/KLK	ADEN/SML
Ambala	UMB	UMB-RRA	SSE/UMB	ADEN/UMB

Ambala	UMB	UMB-UBC	SSE/UMB & RPJ	ADEN/UMB&RJP
Yamunanagar	UMB	RAA-KNZ	SSE/SRE	ADEN/SRE
CHANDIGARH				
Chandigarh	UMB	GHG-CDG	SSE/CDG	ADEN/CDG
Chandigarh	UMB	GHG-SAS Nagar	SSE/CDG	ADEN/CDG
PUNJAB				
Bathinda	DLI	DLI-BTI	SSE/MSZ	ADEN/JHI
Mansa	DLI	DLI-BTI	SSE/MSZ	ADEN/JHI
Patiala	UMB	SBJ-DUI	SSE/RPJ,DUI & PTA	ADEN/RPJ & PTA
	UMB	DUI-UKN-GLL	SSE/DUI & UKN	ADEN/PTA
	UMB	RPJ-CHA	SSE/RPJ & DOA	ADEN/RPJ
	UMB	SIR-NLDM-MTPR	SSE/SIR & RPAR	ADEN/SIR
Ludhiana	UMB	CHA-SNL	SSE/RPJ	ADEN/RPJ
	UMB	GLL-LDH	SSE/DUI	ADEN/PTA
Bathinda	UMB	DUI-BTI-HMK	SSE/BNN,BTI&ABS	ADEN/BTI
Pathankot	FZR	PTK-MDPB	SSE/PTK	ADEN/PTK
Ludhiana	FZR	SNL-ASR	SSE/LDH	ADEN/LDH
Amritsar	FZR	SNL-ASR	SSE/BES	ADEN/ASR
Amritsar	FZR	SNL-ASR	SSE/ASR	ADEN/ASR
Amritsar	FZR	SNL-Attari	SSE/ASR	ADEN/ASR
Amritsar	FZR	ASR-PTK	SSE/ASR	ADEN/ASR
Amritsar	FZR	Verka-Derababa Nanak	SSE/ASR	ADEN/ASR
TarnTaran	FZR	ASR-Khemkaran	SSE/PAX	ADEN/ASR
TarnTaran	FZR	Beas-Goindwal	SSE/BES	ADEN/ASR
Nawashasar	FZR	SNL-ASR	SSE/NSS	ADEN/LDH
Firozpur	FZR	BTI-FZR	SSE/FZR	ADEN/FZR
Firozpur	FZR	LDH-FZR	SSE/FZR	ADEN/FZR
Firozpur	FZR	JUC-FZR	SSE/LNK	ADEN/FZR
Firozpur	FZR	FZR-FKA	SSE/FZR	ADEN/FZR
Jalandhar	FZR	JUC-NRO	SSE/NRO	ADEN/FZR
Jalandhar	FZR	PHR-LNK	SSE/NRO	ADEN/FZR
Kaputhala	FZR	JUC-FZR	SSE/LNK	ADEN/FZR
Jalandhar/Ludhiana	FZR	PHR-LNK	SSE/LNK	ADEN/FZR
Hoshiarpur	FZR	JUC-PTK	SSE/MEX	ADEN/PTK
Pathankot	FZR	JUC-PTK	SSE/PTK	ADEN/PTK
Pathankot	FZR	ASR-PTK	SSE/PTK	ADEN/PTK
Pathankot	FZR	ASR-PTK	SSE/DHW	ADEN/PTK
Gurdaspur	FZR	Batala-Qadian	SSE/DHW	ADEN/PTK
Hoshiarpur	FZR	JUC-Hoshiarpur	SSE/JRC	ADEN/JRC
Jalandhar	FZR	SNL-ASR	SSE/JUC	ADEN/JRC
Bathinda	FZR	BTI-FZR	SSE/KKP	ADEN/FZR
Fazilka	FZR	KKP-FKA	SSE/MKS	ADEN/FZR
Moga	FZR	LDH-FZR	SSE/MQF	ADEN/FZR
RAJSTHAN				
Ganga Nagar	UMB	HMK-SGMR	SSE/ABS	ADEN/BTI
HIMACHAL PRADESH				
Solan	UMB	KLK-SOL	SSE/KLK & SML	ADEN/SML
Shimla	UMB	SOL-SML	SSE/SML	ADEN/SML
Una	UMB	MTPR-AADR	SSE/RPAR	ADEN/SIR

Kangra	FZR	PTK-JMKR	SSE/PTK	ADEN/PLMX
Hamirpur	FZR	JMKR-JDNX	SSE/PLMX	ADEN/PLMX
JAMMU AND KASHMIR				
Kathua	FZR	MDPB-SMBX	SSE/KTHU	ADEN/JAT
Jammu	FZR	SMBX-JAT	SSE/JAT	ADEN/JAT
Udhampur	FZR	JAT-SVDK	SSE/UHP	ADEN/UHP
Srinagar	FZR	BAHL-BRML	SSE/BDGM	ADEN/BDGM

Annexure-II

NDRF BATTALIONS

SNo.	Designation of Commandant	Office	Mobile	Fax No
1	Commandant 128 th BSF, Guwahati (Assam), (1 st Bn NDRF)	0361-2840027		0361-2849080
2	Commandant 106 th BSF, Kolkata (West Bengal) (2 nd Bn NDRF)	033-25264302		033-25875032
3	Commandant, DM-1, CISF, Mundali (Orissa)(3 rd Bn NDRF)	0671-2879710		0671-2879711
4	Sr. Commandant, DM-2, CISF, Arrakonam (Tamilnadu) (4 th Bn NDRF)	04177-246269		04177-246594
5	Commandant, 145 CRPF, Pune (Mharashtra) (5 th Bn NDRF)	02114-247010		02114-247008
6	Commandant, 146 CRPF, Gandhi Nagar (Gujarat) (6 th Bn NDRF)	079-23202540		079-23201551
7	Commandant 27th ITBP, Bhatinda (Punjab) (7th Bn NDRF)	0164-2246193		0164-2246570
8	Commandant 6th ITBP, Kamla Nehru Nagar Sector- 19 Gaziabad (UP) (8th Bn NDRF)	0120-2766013		0120-2766012
9	Commandant 9 th Bn NDRF)Bihata Patna, Bihar	06115-253942		06115-253939
10	Commandant 10 th Bn NDRF, ANU Campus, Nagarjuna Nagar, Guntur(AP)	0863-2293178		0863-2293050

Annexure-III**NDRF Head Quarters**

Designation	Address	Tele	Fax	Mobile
DG	Directorate General National Disaster Response Force (NDRF) Antyodaya Bhawan, B- 2 Wing, 9 th Floor, CGO Complex, Lodhi Road, New Delhi-03	011- 24369278 011- 24369280	011- 24363261	
IG	Directorate General National Disaster Response Force (NDRF) Antyodaya Bhawan, B- 2 Wing, 9 th Floor, CGO Complex, Lodhi Road, New Delhi-03	011- 24363268	011- 24363261	
Dy Commandant (Proc)	Directorate General National Disaster Response Force (NDRF) Antyodaya Bhawan, B- 2 Wing, 9 th Floor, CGO Complex, Lodhi Road, New Delhi-03	011- 24363265	011- 24363261	
Inspector Control Room	Directorate General National Disaster Response Force (NDRF) Antyodaya Bhawan, B- 2 Wing, 9 th Floor, CGO Complex, Lodhi Road, New Delhi-03	011- 24363260	011- 24363261	

Disaster management Division, MHA

(Ministry of Home Affairs)

Designation and location of Deployment	Tel(Office) (011)	Tel Residence (011)
Home Secretary	23092989 23093031, 23093003 (F)	23011863
Secretary (Border Management)	23092440, 23092717 (F)	24602518
JS (Disaster Management)	23438096, 23438098 24610906(F)	9910391422
Dir (NDM-I)	24642853	26266708
Dir (NDM-II)	24622543	26100688
Dir (NDM-III)	24642381	24641159
US (AD-CD)	24692853	
Consultant (DM)	-	25368827
Tech. Officer (NDM-I)	23438106	
Duty Officer (DM Control Room)	23093563 23093564/23093565	
US(NDM-II)	23738177	
US(NDM-III)	23438144	
US(NDM-IV)	23092664/24640391	
Control Room Disaster Management)	23092923 23093054 23092885	23093750 23092398 (fax)
Control Room (Internal security)	23093054, 23092763 23092885, 23092923	23093398 (fax)
Toll free No. (MHA, C/R)	-	-
Toll free No. (Delhi Government, DM C/R)	1077	-
Toll free No. (State Disaster Management Control Room)	-	-
Toll free No. (District Disaster Management Control Room)	-	-

Annexure-V

National Disaster management Authority (New Delhi)

Designation and location of Deployment	Tel(Office) (011)	Tel Residence (011)	Mobile No.
Chairman	26701701/04		
Member	26701783	-	-
Member	26701767	24122310	
Member	26701754	-	-
Member	26701736	-	-
Member	26701775	-	-
Member	26701778	-	-
Member	26701766	-	-
Secretary	26701711	-	-
JOINT SECRETARIES			
JS (Admn)	26701791	26109395	
Advisor & JS(Mitigation)	26701718,26701864(F)	-	-
JS(PP)	26701777,26701728(F)	-	-
FINANCIAL ADVISOR			
FA	26701709,26701715(F)	-	-
JOINT ADVISORS			
JA(IT & Comn)	26701743	-	-
JA(F)	26701886	-	-
JA (Mitigation Project)	26701815	-	-
JA(OPS)	26701788	-	-
JA(CBT)	26701880	-	-
JA (M&P)	26701798	-	-
JA (PP)	26701816	-	-
DS (Admn.)	26701833	-	-
Reception Control Room	26701700 26701728(Enq.)	-	

Annexure-VI

SNOW AND AVALANCHE STUDY ESTABLISHMENT (CHANDIGRAH) DRDO (0172)

Designation and location of Deployment	Tel(Office)	Tel Residence	Mobile No.	Fax
Jt.Dir.	2699804-806 Extn-204	2705990		2699802
T.O.(B)	Extn-203	-		-

Annexure-VII**GEOLOGICAL SURVEY OF INDIA**

Designation and location of Deployment	Tel(Office) (011)	Tel Residence (o11)	Fax
Dir. General Kolkata	033-225217779/775		033-22521656
Dir. (LHIM & EPE)Delhi	011-29053777 011-29051328		29962671 29051328
DMS Control Room (Delhi)	011-29053777		011-2996271

Annexure-VIII**INDIAN METEOROLOGICAL DEPARTMENT (011)**

Designation and location of Deployment	Tel(Office)	Tel Residence	Mobile No.	Fax
VSM DG (M) dgmmet@gmail.com	24611542 43824225 43824253	24122236		24611792
ADG (M) Seismology	24697473	-	-	24697473
DDGM Seismology	24611305 43824405			24619943 24611305
DDGM (EREC)	24616309 43824516		9849598161	24619943
DDGM (ISSD)	43824314	-	-	-
DGM OFFICE	43824279			-
Dir. (NHAC)	43824481			-
Dir. (AMSS)	25653509	-	-	25652398
Seismology Control Room	24619943	-	-	-
MC, JAIPUR	0141-2793245	-	-	-
IMD Jaipur Duty Officer	0141-2790194 2725326(Air Port)	-	-	-
Cyclone Warning	24631913 24652484	-	-	-

Annexure-IX**CENTRAL WATER COMMISSION (011)**

Designation and location of Deployment	Tel(Office)	Tel Residence	Mobile No.	Fax
Chairman	26715351			
Secretary	26187232			26195516
Dir.(FMP)	26182836			26106523
Member (D&R)	26108150			
Dy.Dir. (T)	26105274/2939			
CE/Dam Safety (RM)	26106848 26103221			26101749
Commissioner Ganga	24368238 (Telefax)			24362780
Reception/Control Room CVC	26106523			
Dir. (M&A) Jaipur	0141-2721455			
Flood Control Room	011-26106523			
Jaipur Control Room	0141-5110111			0141-2791826

Annexure-X**INTEGRATED DEFENCE STAFF (011)**

Designation and location of Deployment	Tel(Office)	Tel Residence	Mobile No.	Fax
DCIDS (Ops)	23013947 (F) E-35886	23017339 E-35887		
ACIDS (Jt. OPs)	23011442 E-35894	25688784		-
DACIDS (Ops Lgs)	23005134		9810336792	23005137/5226
Dir. (Ops Lgs)	23005126		8794744149	23005226
Jt. Dir. (Ops Lgs)	23005133	23076370	9999698901	23005226
Ops Room (HQr IDS)	23005131 23005114			23005137

Annexure-XI**ARMY HQR (EXCHANGE NOS (011-23010131/ (23018197 Directory)**

Designation and location of Deployment	Tel(Office)	Tel Residence	Mobile No.	Fax
Reception	26196220 23018197 26172861	-	-	
DGMO	23011506		-	
ADGMO(A)	23011611		-	23011617
ADGMO (B)	23014891		-	23011617
Dir.MO-6	23018034	-	-	23011617
GSO-I MO-6	23019739	-	-	23011617
Dir OL-2	23094681		-	-

Annexure-XII**AIR HQR (EXCHANGE-011-23010231)**

Designation and location of Deployment	Tel(Office)	Tel Residence	Mobile No.	Fax
ACAS (Ops)	23014424 23010231/7528			23017627
PD Ops (Off) (T&H)	23016354			23016354
Dir. Ops (T)	23010231/7545			23016354
Dir. Ops (H)	23010231/7551			-
JD Ops (LS)	23010231/7546			23016354
JD Ops (H)	23010231/7552			23792973

Annexure-XIII**NAVAL AIR HQR (EXCHANGE-011-23010121/23014167)**

Designation and location of Deployment	Tel(Office)	Tel Residence	Mobile No.	Fax
Reception	23011400			
Dir.	230111725/639 23007348			
ACNS (IW &PS)	23011477	230136886		-
PDNO	23011706			
DNO	23010503			23010143