

**This is to certify that this report has been compiled as per the provisions of ICAO Annex 13 for all concerned.**

**The report has been authenticated by the Commission with a view to ensuring prevention of aircraft accident and that the purpose of this activity is not to apportion blame or liability.**

## **1. TITLE**

**Preliminary Report on the Aircraft Accident at Tribhuvan International Airport, Kathmandu, Nepal on 12 March, 2018; Flight UBG 211 (Callsign Bangla Star 211), Aircraft Registration S2-AGU, Type DHC-8 Q 400, MSN 4041, Sector Dhaka to Kathmandu, Owned and Operated by US Bangla Airlines Ltd of Bangladesh**

### **1.1 Introduction**

In accordance with the requirement of ICAO Annex 13 and Civil Aviation (Accident Investigation) Regulation 2016 of Nepal, this Preliminary Report has been prepared within the given timeframe (30 days) following the aircraft accident in order to present an updated status of the investigation on the aforementioned accident. While this report is being circulated to different States in conformance with Chapter 7, Section 7.1 of ICAO Annex 13, the final report, once completed, will represent the complete investigation report and will be made available to public in due course of time.

## **2. SYNOPSIS**

This preliminary report has been prepared based on the initial information gathered from the crash site of DHC-8 Q 400 aircraft owned and operated by US-Bangla Airlines Ltd which met with an accident at Tribhuvan International Airport (TIA) on 12 March, 2018 and the documents so far obtained from all involved Authorities and Organizations.

The aircraft was on an approach to land at TIA, when it crashed in the Eastern part of the field of Runway 02, just outside the inner perimeter fence of the aerodrome. The aircraft was scheduled to arrive from Hazrat Shahjalal International Airport, Dhaka, Bangladesh with 67 passengers and 4 crew members onboard to TIA, Kathmandu, Nepal. The aircraft crashed at 0834:10 UTC (1419:10 LT) causing total fatality of 51 people at the time of preparation of this report (09 April 2018). At the crash site, the aircraft was found mostly burnt and completely damaged as it caught fire that engulfed major portions of aircraft at the point of its resting.

According to the eye witnesses and the statements submitted by the RFF personnel, the rescue and firefighting team immediately rushed to the crash site, fought the fire and rescued survivors and victims with utmost efficiency.

The Government of Nepal formed an Aircraft Accident Investigation Commission on 12 March, 2018 as per the existing Civil Aviation (Accident Investigation) Regulation 2016 of Nepal. The 'Notification' of accident was sent to applicable National and International Authorities as per Chapter 4, Section 4.1 of ICAO Annex 13.

The process of Investigation is ongoing and, in the interest of accident prevention, the Commission shall make the final report publicly available as per the provisions outlined in Chapter 6, Section 6.5 of ICAO Annex 13.

If the report cannot be made publicly available within twelve months, the Commission shall, in conformance with Chapter 6, Section 6.6 of ICAO Annex 13, make an interim statement publicly available on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised.

### **3. FACTUAL INFORMATION**

#### **3.1 History of Flight**

|                           |                                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------------------------|
| Date of Flight            | 12 March 2018                                                                                       |
| Flight Number             | UBG 211 (Call Sign Bangla Star 211)                                                                 |
| Aircraft Registration     | S2-AGU                                                                                              |
| Aircraft Type             | DHC-8 Q 400                                                                                         |
| Type of Operation         | Scheduled Passenger Flight                                                                          |
| Last Point of Departure   | Hazrat Shahjalal International Airport, Dhaka, Bangladesh (VGHS)                                    |
| Time of Departure         | 0652 UTC (1252 LT)                                                                                  |
| Point of Intended Landing | Tribhuvan International Airport, Kathmandu (VNKT); N27 <sup>0</sup> 41'36" E085 <sup>0</sup> 21'49" |
| Scheduled Time of Arrival | 0830 UTC (1415 LT)                                                                                  |
| Time of Accident          | 0834:10 UTC (1419:10 LT)                                                                            |
| Whether Day or Night      | Day                                                                                                 |

#### **3.2 Injuries to Persons**

| Injuries        | Crew | Passengers | Others |
|-----------------|------|------------|--------|
| Fatal           | 04   | 47         | None   |
| Serious         | N/A  | 20         | None   |
| Minor/Non-fatal | N/A  | None       | None   |

#### **3.3 Damage to Aircraft:**

The aircraft was mostly burnt and completely destroyed beyond repair.

#### **3.4 Other Damages**

The airport perimeter fence where the aircraft ran through, before stopping at the final resting point, was damaged.

#### **3.5 Personnel Information:**

|                  |                                                      |
|------------------|------------------------------------------------------|
| Pilot in Command | Pertinent information to be provided in final report |
| First Officer    | Pertinent information to be provided in final report |
| Cabin Crew       | Pertinent information to be provided in final report |
| Other Personnel  | Pertinent information to be provided in final report |

### 3.6 Aircraft Information:

|                                                         |                                                                   |
|---------------------------------------------------------|-------------------------------------------------------------------|
| Model                                                   | DHC-8 Q 400                                                       |
| Manufacturer                                            | Bombardier Incorporation, Canada                                  |
| Registration                                            | S2-AGU                                                            |
| MSN                                                     | 4041                                                              |
| Engine Make and Model                                   | PW150A                                                            |
| Propeller Make and Model                                | DOWTY AEROSPACE/R 408/6-123F/17                                   |
| Certificate of Airworthiness                            | Valid Until 07 July 2018.                                         |
| Certificate of Release to Service<br>(Line Maintenance) | Valid Until 29 June 2018/21630:57 Hrs,<br>whichever comes earlier |
| Type of Fuel Used                                       | JET A-1                                                           |
| Performance Status:                                     |                                                                   |
| 1. Take off Weight and CG                               | 1. 28,713 Kg; CG: 24.5%                                           |
| 2. Landing Weight and CG                                | 2. 26,914 Kg; CG: 24.5%                                           |

### 3.7 Meteorological Information:

The applicable METAR:

VNKT 120750Z 25007KT 200V300 6000 FEW015 FEW025TCU SCT030 22/10 Q1016 NOSIG;

VNKT 120820Z 28008KT 240V320 6000 TS FEW015 FEW025CB SCT030 22/11 Q1015 NOSIG CB TO SE S AND SW.

During the time of the crash, the following weather persisted as provided by the Meteorological Forecasting Division, Kathmandu:

1. The westerly wind was dominating with speed of 7-8 kts;
2. The prevailing visibility was 6-7 km;
3. The temperature was measured around 21 degree Celsius;
4. The sea level pressure was recorded 1015 hpa; and,
5. The sky was covered with scattered (3-4 Octas) low cloud and few (1-2 Octas) cumulonimbus cloud. The cumulonimbus was observed over the southern side of the Kathmandu valley at southeast, south and southwest direction with thunder and lighting.

### 3.8 Aids to Navigation

| Type of Aid | Identification | Frequency |
|-------------|----------------|-----------|
| VOR/DME     | KTM            | 113.2 MHz |

Kathmandu airport is equipped with VOR/DME and the aircraft was on VOR/DME approach.

### 3.9 Communications

| Facility                 | VHF (MHz)                      |
|--------------------------|--------------------------------|
| Ground Control (Ground)  | 121.9 M Hz                     |
| Aerodrome Control Tower  | 118.1 MHz ; 118.5 MHz (Backup) |
| Approach Control (RADAR) | 120.6 MHz ; 125.1 MHz (Backup) |
| Area Control Centre      | 126.5 MHz ; 124.7 MHz (Backup) |

Two-way communication between the aircraft and the approach as well as tower control was normal until 0832:58 UTC (1417:58 LT). Thereafter, a few transmissions were made by both ATC and the Pilot until 0833:45 UTC (1418:45 LT), but no corresponding replies or acknowledgements were made from either side.

### **3.10 Aerodrome Information**

|                     |                                                   |
|---------------------|---------------------------------------------------|
| Name                | Tribhuvan International Airport, VNKT             |
| IATA Code           | KTM                                               |
| Airport Coordinates | N27 <sup>0</sup> 41'47", E085 <sup>0</sup> 21'32" |
| Airport Elevation   | 4395 feet                                         |
| Runway              | 02/20; 10007 Ft x 150 Ft; Bitumen                 |

The runway, taxiway and apron area at Tribhuvan International Airport were adequate for the operation of the DHC-8 Q 400 aircraft. Category IX Rescue and firefighting capability were maintained.

### **3.11 Flight Recorders:**

The CVR, FDR and associated items were retrieved and secured from the accident site.

### **3.12 Wreckage and Impact Information:**

The aircraft touched down at about 1700 meters down the threshold and on the left portion of centerline of Runway 20. The coordinates of the point of touchdown is N27<sup>0</sup>41'48", E085<sup>0</sup>21'34". The aircraft then travelled on ground towards Southeast, went out of the Runway, ran through the inner perimeter fence of the airport area, moved down along rough downslope and finally stopped at about 442 meters Southeast side of the Runway from its initial touch down point. The co-ordinates of the final rest position of the aircraft is N27<sup>0</sup>41'41", E085<sup>0</sup>21'32". At this point, the aircraft caught fire and was completely destroyed.

Although few aircraft parts and wreckage could be found along the down slope area, majority of the wreckage was at the final rest position of the aircraft where the rescue and evacuation operation were conducted.

### **3.13 Medical and Pathological Information**

The medical and pathological reports of the crash victims and survivors are awaited from the relevant organizations and shall be incorporated in the final report.

### **3.14 Fire**

The aircraft was completely destroyed as a result of fire which engulfed major portions of the aircraft. Category IX- firefighting was maintained at TIA. Firefighting and emergency services reached the crash site within 2 minutes and immediately started operation to douse the flames. Four large foam tenders, one medium foam tender and two water tankers were used with full effectiveness.

### **3.15 Survival Aspects**

Out of 67 passengers and 04 crew members, 22 injured passengers were rescued from the crash site and sent to different hospitals within the vicinity of Kathmandu valley. But later 02 of the surviving passengers succumbed to injury.

### **3.16 Test and Research**

The reviewing of the available documents and testing, decoding, research and analysis of all pertinent equipment retrieved from the aircraft are ongoing and the results shall be included in final report.

### **3.17 Organization and Management Information**

Will be incorporated in the final report.

### **3.18 Progress of Investigation**

The Commission is collecting and analyzing all the evidences and the relevant documents for necessary investigation. The aircraft equipment such as the PSEU, EGPWS, EMU, QAR, CVR and DFDR already dispatched, have been received by TSB Canada for downloading, decoding, readout and analysis including animation.

### **3.19 Additional Information**

To be included in the final report, if any.

## **4. ANALYSIS**

To be provided in the final report.

## **5. CONCLUSION**

To be mentioned in the final report.

## **6. CAUSES/CONTRIBUTING FACTORS**

To be included in the final report.

## **7. SAFETY RECOMMENDATIONS**

To be released to all concerned as and when applicable.

**END**