



Information Article

Catastrophic Aircraft Accident - Passenger Manifest Verification - PMV

EXAMPLE only

PASSENGER MANIFEST / EXERCISE FLIGHT ABC 999 / BHX to ALC / STD 0900 / STA 1130 - 20 Jan 10

Boeing 757; G-xxxx; TOTAL PAX-235 (Note - first [fictitious] 14 passengers **only** shown in the below box)

1. 1/ ADAMSSON / KJ MRS	BN116 SN8C	Y ALC ORML RSN EMB BAG 7
2. 1/ AKUFFTON / ADRI B	BN214 SN17D	Y ALC PSM ASR ORML EMB BAG 0
3. 4/ ALBRON / LMMRS	BN094 SN7A	Y ALC PSM ASR ORML CKIN XBAG
ALBRON / AB MR	BN095 SN7B	Y ALC ASR ORML EMB
ALBRON / NO MR	BN096 SN7C	Y ALC ASR ORML EMB
ALBRON / AB CHD	BN097 SN7D	Y ALC CHD ASR ORML EMB
4. 1/ ALLIN / RICH J+	BN070 SN36A	Y ALC ASR ORML EMB BAG 2
5. 1/ ANOYDRIS / C MR AY2	BN160 SN11D	Y ALC ASR ORML EMB BAG 2
6. 1/ ARESIN / LEIG+	BN086 SN41E	Y ALC PSM ASR ORML EMB BAG 2
7. 1/ BADERUN / LISA BU2	BN171 SN37A	Y ALC PSM ASR ORML EMB BAG 0
8. 4/ BAKERLOO / E MRS	BN144 SN6F	Y ALC PSM ASR ORML EMB BAG 4
BAKERLOO / JAB MR	BN145 SN6G	Y ALC ASR ORML EMB
BAKERLOO / JK CHD	BN146 SN6H	Y ALC CHD ASR ORML EMB
BAKERLOO / JA CH+	BN147 SN6K	Y ALC CHD ASR ORML EMB

Relevance

Passenger Manifest Verification (or *Confirmation or Reconciliation*) is the process of using all available, appropriate, corroborating information - in order to make the basic (initial or preliminary) passenger manifest (passenger list) - as accurate as actual circumstances 'on the day' so permit

Apart from the overriding, humanitarian reason for obtaining the most accurate (verified / confirmed / reconciled) list available of all passengers on board an accident / incident flight (and also for legal reasons in some jurisdictions) - airlines **can and do** use the verification status to guide what information can be provided to enquiring families, relatives and friends - regarding whether or not the person(s) (i.e. **potential** victim[s]) being enquired about - is / are believed to have been on board the accident flight - or not, as the case may be

Note - Fictitious (scheduled) passenger airline '**ABCX Airways**' is used to provide some 'context' in this article i.e. whatever applies to ABCX Airways herein may be regarded as being generally applicable to all scheduled passenger airlines (and most other passenger carrying airlines e.g. charter airlines) in principle - when preparing and undertaking the PMV task





Crew List (GD) & Passenger List (Passenger Manifest) - Verification Procedure - General

Introduction

Crew List (GD)

The '**accident** etc. **airline**' will typically manage the simple and quick task of 'verifying' an accident flight's **crew** list (typically contained in that flight's 'General Declaration - GD' form) - via its Operations department (Crew Control section) at airline HQ + associated input from the airline's Station Manager / rep - at the station(s) / airport(s) of **last** departure of that specific flight

Once verified, this '**final**' version of the crew list should be forwarded without delay to the airline HQ CSU (crisis support unit) team centrally overseeing the entire (i.e. for both crew and passengers) 'verification' process i.e. typically to the airline's **Airports** Department (known in some airlines as '**ground operations**') at airline HQ

Note - Take care to account for any last minute **crew** changes at the accident flight's * station(s) (airport[s]) of last departure (e.g. due sickness, probably known to local station staff [typically Station Manager / Ground Handling Agent etc.] - but which **may** [e.g. due to human error] **not have been passed on** to airline HQ)

Also ensure that any persons who might have been seated on cockpit jump seats, cabin crew seats in the main cabin etc. (i.e. mainly certain, authorised staff on duty travel - not able to take a normal passenger seat for whatever reason) **are also adequately accounted for**

* The 'departure' airport for an aircraft's 'first flight of the day' also counts for this purpose of course

Passenger List (Passenger Manifest)

- For professionally run airlines, any particular flight's passenger (PAX) list (manifest) will almost always be available (typically quite quickly) to airline HQ - and will also almost always be reasonably **accurate**, but not necessarily 100% so
- For other airlines, what has been stated just above may not be the case, for various reasons not expanded upon here (i.e. no reliable [if any] passenger list will exist at all)
- Lastly, circumstances beyond any airline's control might lead to a passenger manifest not being available at all or, if available, not being quickly accessible; not being accurate etc.

Assuming (as we do herein) that ABCX Airways fits into the first category above, it will be necessary to **further** check (verify / reconcile / confirm) the most accurate passenger manifest list available (however it might have been produced / obtained), in order to make it as close to '100% accurate and complete', as possible

This process / procedure is widely known by the term '**Passenger Manifest Verification / Reconciliation / Confirmation (PMV)**' - and typically involves the use of **independent, corroborating** information to further enhance the accuracy of said manifest. There are several ways of achieving this, generally in combination (and as available of course) with:





Airlines Using 'Normal' Paper Tickets (Ticket Coupons) and Boarding Cards

'Pulled' Ticket Coupons

Collect the ticket coupons which will have been taken (pulled) from the accident flight's checked-in passenger tickets (i.e. as the latter checked-in) - and arrange them (by **last** name) **alphabetically**

Now check each pulled ticket coupon, one by one, and find the corresponding name on the **most accurate and current passenger manifest list available** (most passenger manifest lists show names alphabetically - by last name [surname or family name] - followed by first name[s] and / or initials)

If a coupon name matches a manifest name more or less exactly, then the latter may be considered to be **potentially** 'verified' and that particular person **potentially** 'assumed' to have actually been on board the accident flight aircraft - unless there is reasonable evidence to believe otherwise. This potential verification is then **combined** with **other forms** of potential verification (using different sources) - if available (e.g. boarding card information) - to eventually further confirm (strengthen the reliability of) the verification

Repeat the process for all remaining coupons. As batches (e.g. 10 at a time) of names are verified, pass on this information without delay to the accident airline HQ's Crisis Management Centre (or equivalent facility) by telephone, backed up by Email, FAX, SITA message etc.

At the end of the procedure, list any names on the manifest which were **unable** to be potentially verified, for whatever reason (but give the reason if possible e.g. conflicting spellings / gender; missing etc.). Try again (one more time) to make a match with these remaining, unverified names. If further matches are made, again pass on to airline HQ without delay

Finally, pass the list of any remaining 'unverified names' to airline HQ (without delay) by telephone, backed up by Email, FAX, SITA message etc.

Note - It is acknowledged here that very few airlines still use ticket coupons during normal operations. The information provided above will be removed when the world-wide use of same ceases

Boarding Cards

Carry out a similar process to that described above for ticket coupons - but this time using the airline retained portion of boarding cards

Note - A portion of the 'old fashioned' boarding card is typically retained by the airline as the passenger leaves the departure gate in order to board the aircraft. The other portion (the stub) is typically retained by the passenger for presentation to the cabin crew on entering the aircraft

Alternatively, the complete boarding card can be fed by gate staff into an automated 'gate reader' which sends 'boarded' information directly to the airline's **DCS** (Departure Control System) - where it is used to compile the **boarded** passenger list for the flight. A later variation involves scanning of a bar code on the boarding card. In such cases the boarded passenger list can generally be assumed to be the **most accurate and current passenger list available at that particular point in time**





E Tickets

Boarding cards may still be issued for customers checking-in with **E Tickets** - consequently, the 'boarding card' process described just above might be followed. Alternatively, the E ticket itself (as printed by the passenger - typically after receipt via the internet) often now serves as the boarding card, with the E ticket bar code being scanned on boarding, again as similarly described above

Furthermore, it is now possible to have an E Ticket (including integrated boarding pass) stored e.g. on personal, mobile electronic devices such as smart phones etc. This 'electronic' information is 'read' on check-in, on boarding etc. - and updated again (in the 'system') once the flight departs

Additionally, the computer system storing all such E Ticket etc. data is typically **updated** (by the associated DCS) **at each stage** of the process of getting the customer through the airport and into the air i.e. after check-in; after boarding and after the aircraft has actually departed (flown)

Consequently, all of this latter data must also be obtained, safeguarded etc. and used as an integral part of the verification cross-checking process - where appropriate. In fact, in the circumstances describe above, the 'flown' passenger list may effectively be regarded as being **almost** 100% confirmed / verified by default **BUT** - as human error can never adequately be accounted for - further corroborating measures should still be used as described herein

Note - the 'boarded' passenger list and the 'flown' passenger list will be the same unless a passenger subsequently leaves the aircraft after boarding has taken place - but before take-off (rare but possible). In such circumstances the 'flown' passenger list should have been corrected / updated accordingly - but there is a risk here that this might not be done - again, almost always due to some form of 'human error'

Additions, Deletions and other Changes

Ensure that any '**additions and / or deletions list - ADL**' and '**last minute change - LMC**' type info (if any) concerning all on board has been collected and accounted for when conducting the verification process. Human error is again the danger here as any actual additions, deletions or other changes may not have been recorded and / or been recorded inaccurately (usually inadvertently of course)

Accordingly, it will typically be necessary to directly contact all appropriate persons involved with the complete check-in and boarding process for an accident flight, to try to confirm with them that all actual additions, deletions and / or other changes (if any) were accounted for, in the required manner

Other Sources of Corroborating Information / Data

Includes 'loyalty scheme' (frequent flyer) type records, Advance Passenger Information - API / APIS (security) type data, immigration records, reservation (ticket booking [PNR]) records, information subsequently (post-accident) provided by family, relatives and friends associated with accident flight's passengers etc. (This list is not exhaustive)





No Passenger Manifest Available

Sometimes (rarely) no passenger manifest will be available. There are a number of reasons (not expanded upon here) why this might be so. Accordingly, PMV procedure is going to be much more difficult (impossible in some circumstances) to apply effectively and efficiently. Nevertheless, there will usually be some form of corroborating information (as to who was on board) available 'somewhere' and, circumstances permitting - same must still be sought and used

WHY VERIFY?

Apart from the obvious 'humanitarian' reason for requiring the most accurate list available of all persons on board e.g. a catastrophic aircraft accident flight (and also for legal / quasi-legal and 'best practice' purposes in some jurisdictions e.g. Australia, Brazil, European Union, UAE, USA etc.) - some airlines use the PMV status / results to guide what information might be provided to enquiring family, relatives and friends (FR who, by definition, had not been on board an associated accident flight) - primarily regarding (in the first instance) whether or not the person(s) (potential victim[s]) being enquired about is / are believed to have been on board the accident flight concerned

For example, if a name being enquired about appears on an **unverified** passenger list - a typical airline response to enquiring FR might be:

*'..... The **name** of the person you are enquiring about appears on the passenger list for this flight - but this does not necessarily mean that this person was actually on board the flight. We are checking further on this matter and will contact you immediately we have more information*

For example, if a name being enquired about appears on a **verified** passenger list the airline response might typically be:

*'..... To the best of our belief the **person** you are enquiring about was on board this flight. We are checking further to try to obtain further confirmation of this, together with finding out the condition and location of this person, if appropriate. We will contact you immediately we have more information*

LOCATIONS at which PMV TASK should be PERFORMED

Accident Flight's Station(s) / (Airport[s]) of Last Departure

For passenger airlines still using paper-type boarding cards (whether individual cards or as an integral part of a paper E Ticket) and (rarely today) paper ticket coupons - the PMV is typically best conducted at the station(s) (airport[s]) of last departure of the accident flight, as this is where such corroborating 'paper' documentation is typically stored - until such time as it might be routinely forwarded to airline HQ and / or destroyed





It is also likely that such station(s) (airport[s]) has / have access to associated loyalty scheme and API / APIS data (and, if not, the latter two can probably be relatively easily / quickly obtained from airline HQ). PNRs, Immigration Records, ADLs and LMCs might similarly be locally available - as appropriate

For multi-sector flights (e.g. airports A to B to C etc. - typically operated under the same flight number) **ALL** appropriate departure stations (airport[s]) will need to carry out their own, individual part / portion of the overall PMV process. ***This entire process MUST be centrally overseen and co-ordinated by the appropriate staff (e.g. from airport services / ground ops) at airline HQ***

The main disadvantage of the above system relates to a potential lack of manpower at station (airport) level e.g. in terms of availability, appropriate training / exercising / knowledge, facilities etc.

Airline HQ

For passenger airlines operating what might be termed 'ticketless' operations - it might typically be more advantageous to perform the PMV at airline HQ location itself - as the vast majority of corroborating (usually 'electronic') data should already be available here

The small amount of associated data which might not be centrally held is often (but not always) capable of being quickly obtained - provided the associated processes / procedures are already in place, have been previously exercised etc.

The main advantage of this option typically (but not always) relates to the adequate provision of appropriately trained and exercised manpower at airline HQ





ABCX Airways - PAX MANIFEST & CREW LIST VERIFICATION - a suggested PROCEDURE

The associated checklist starts on page 9

Passenger Manifest

1. A **verified** passenger manifest for the 'accident flight' should be made available to the Crisis Management Centre (CMC) at airline HQ, **within a target time of 1.5 hours** (or sooner) of the time that associated **initial** crisis notification was made to that airline. This verified manifest is to be forwarded by the CMC, in turn & without delay, to the airline's Emergency (Telephone) Call Centre facility and other pre-defined recipients
2. All Airports (Ground Ops) Crisis Support Unit (CSU) staff at airline HQ plus all airline Station Airports Services (Traffic / Ramp / Terminal etc.) staff (including GHAs and Supervisory Agents [Airline Reps] & others TBA) - **shall be pre-trained and exercised in the PMV task**. The training (initial and recurrent) and exercising (ongoing) processes shall be overseen by the Airports CSU at airline HQ. Documented records of training and exercising shall be maintained
3. As the PMV task progresses, the person in charge locally (usually at accident flight's station[s] of last departure) shall regularly contact the Airports CSU rep at e.g. 20-30 minute intervals (via departure Station's own 'airline' local accident control centre [LACC] if required / available), to advise of those passenger names for which it was not possible to make verification - **up to that specific point / time in the PMV process**. For each and every one of these contacts with Airports CSU at airline HQ - be sure to advise the latter of the last name on the manifest, which has been reached so far (up to that point) in the process
4. Plans must be in place to also verify crew and other personnel who may **not** show by name (for whatever reason e.g. **typically due human error**) on any of the Passenger Manifest, the General Declaration (Crew List) or any other related documentation such as ADLs (Addition / Deletion Lists); LMCs (Last Minute Changes); PNRs etc. Be **very careful** to account for everyone possible - e.g. Jump Seat passenger(s); Duty (Business) Travel passenger(s); Positioning crew & engineers; Interline passengers; Persons accompanying human remains; Unaccompanied Minors, Infants etc.
5. Where applicable, suitable and appropriate, procedures **must also** be put in place to verify those parts of a passenger manifest where the equivalent of 'boarding cards' have been pre-issued as an integral part of an E ticket - whether in paper and / or electronic / digital formats

IMPORTANT: It is imperative that any accident flight be "PD'd" (i.e. standard airline **Post Departure** procedure enacted / completed) immediately upon notification of the accident to the **Station(s) of last departure** for the accident flight (i.e. **if** PD procedure **not** already enacted [which it should have been]). This action should ensure that all departure messages concerning the accident flight have been / will be transmitted (including transmission of load messages etc.). The 'PD' task is to be completed by the appropriate traffic / ramp staff from the airline concerned and / or the GHA / Supervisory Agent representing that airline





Airports (Ground Ops) **CSU at airline HQ** shall make appropriate arrangements for Station Managers and GHAs etc. to include this latter requirement (PD procedure enacted) in their own local (station) emergency response procedures for ABCX Airways

Crew List (General Declaration)

The 24H Operations Control Centre Duty Manager at airline HQ should accomplish the **crew** verification task by working with the airline HQ's crewing department. The task is very simple and quick - merely requiring 'Crew Control' to confirm or amend the crew names on the related 'Crew List / General Declaration' - in order to reflect accurately the crew which **actually** manned the accident flight. The verified crew list is then to be forwarded to the **CMC** at airline HQ without delay

The station(s) of last departure of the accident flight must also be consulted in this process to ensure that any crew change information which **might be known only to that station(s)** is accounted for e.g. last minute cabin crew change at the station due sickness - but where this information had **not** been passed on (for whatever reason - typically human error) to airline HQ

FURTHER READING

For a significantly more in-depth look at how the PMV process can impact (beneficially and adversely) on accident victims and their * associated (not directly involved) family, relatives & friends - follow below link:

<https://www.aviationemergencyresponseplan.com/information/>

* Note - the term '**associated** (not directly involved) **family, relatives and friends**' as used above - refers to the family, relatives and friends (of accident victims) who would **NOT** have been travelling on the accident flight

When the webpage opens, scroll down the list of information articles displayed until you get to the one entitled:

* Information Article - **Guidance for Victims & Families etc.** - following a Catastrophic Aircraft Accident i.e. 'What Happens Now'???

Click on the article to open it - and then find and read **Section 11** entitled:

Who was actually on board the accident aircraft?





CHECKLIST - Passenger Manifest Verification / Reconciliation / Confirmation Task - PMV

- This checklist is targeted for completion within **90 minutes or sooner** of initial crisis notification to accident flight's '**station(s) of last departure**' - and / or other appropriate station / location etc.
- State **here** (by title[s]) who will potentially be assigned to oversee and / or carry out **this** checklist
- IMPORTANT** - read the PMV 'important notes' (page 12) **before** starting this checklist i.e. **NOW**

	Action	☑ ?
1	<p>Contact the person managing the Departure Control System for ABCX Airways at your station (airport) (insert title & contact details here xxxxxxxx / yyyyyyy) and request him / her to prepare to 'lock out / spike / freeze' (i.e. deny access to) all accident flight related DCS information - when so instructed (by yourself / other appropriate [authorised] person)</p> <p>(Briefly describe here (and / or attach an associated cross-reference) the process for how this is to be done and who (primary & backup persons by title & contact) will carry it out - xxxxxxxx)</p>	
2	<p>Print 2 x 'final / flown' (i.e. the most accurate & latest available) Passenger (PAX) Manifests / Lists for the accident flight - (names ideally in alphabetical order - surname [last name] first)</p> <p><i>Note: such passenger manifests / lists may be provided in various formats e.g. ranging from E-ticket reports to handwritten documents - depending on the agencies / systems involved</i></p>	
3	<p>Direct / request / ask another member of staff / whoever (if available - otherwise do it yourself) to print a further 10 x 'final / flown' PAX manifest / lists as follows:</p> <ul style="list-style-type: none"> 5 in alphabetical order (i.e. as per checklist item 2. above) 3 in seat number order (if available / possible) 2 in boarding sequence (security) number order (if available / possible) 	
4	<p>Arrange with reservations / ticket desk agent / whoever (insert contact details here - xxxxxxxx) to print 5 copies of the final / latest booked pax manifest / list from the computer reservation system (CRS [GDS]) used for the accident flight - and to then 'lock out / spike / freeze / inhibit' the accident flight's records (within that CRS / GDS)</p>	
5	<p>Ask same person (as per 4 above) to check for any 3rd party (e.g. codeshare / alliance etc.) pax on the accident flight. * (If there are, ask that he / she takes immediate action to obtain an accurate & current booked / flown / final manifest(s) / similar for all such pax [e.g. from own records; from the 3rd party or its rep(s)] and that same be clearly labelled etc. as 'belonging' to the 3rd party / parties. (* Seek assistance with this from all/any appropriate persons - as required)</p>	
6	<p>Retrieve all 'pulled' paper coupons (tickets) for the accident flight (if any) - and print-off 2 x copies of the associated 'checked-in' passenger manifest (if available)</p>	
7	<p>Retrieve all pulled boarding cards stubs and / or 'gate reader' records for accident flight</p>	
8	<p>Instruct 'DCS person' to 'lock-out / spike / freeze / inhibit' accident flight's details in DCS</p>	
9	<p>Obtain (ASAP) all other available info which might assist with the PMV task (e.g. Loyalty [Frequent Flier] Scheme records; APIS info; Immigration records; PNRs; Travel Agent records etc.)</p>	





10	(If not already there) - Proceed as quickly as possible to the ABCX Airways LACC (Local Accident Control Centre) or other appropriate 'quiet' location - taking all appropriate documentation /paperwork with you. START THE PAX MANIFEST VERIFICATION TASK (insert LACC / other details (location and contacts) here - xxxxxxxx)	
11	Alphabetically sort ticket coupons & boarding card stubs (by last name / family name etc.)	
12	Transfer names from the 'final / flown' (most current and accurate) pax manifest / list available to you - to the Manifest Reconciliation Sheet - in groups of 10 (see next page)	
13	Using the Manifest Reconciliation Sheet - complete the following actions for EACH name within EACH group of 10 - as appropriate (Pay particular attention to name spellings and other 'corroborating info' - so as to ensure that the correct / required person is being checked): <ol style="list-style-type: none"> 1) Try to locate the appropriate name on the checked-in passenger manifest and (if there) tick the associated 'checked-in' column box - indicating that the name was checked-in for the flight 2) Try to locate the pulled ticket coupon for the same name and (if there) tick the associated 'coupon' column box. If there is no coupon for the name because an E-ticket was issued, write 'E Ticket' instead in the coupon column 3) Try to locate the boarding card stub / gate reader record for the same name & (if there) tick the associated 'boarding card' column box. If an E Ticket had been used as a boarding card, write 'E Ticket' instead in the boarding card column 4) Try to locate the same name on the Reservations System PNR / PNL lists and (if there) tick the associated 'RES System' (PNR / PNL) column box 5) Try to locate the same name on any other corroborating information available e.g. Loyalty Scheme records; APIS info etc. - and (if there) tick the associated 'other' column box and also specify the information source 	
14	Using results from 13 above - use experience, logic, common-sense etc. to decide if each name is to be considered verified or not. If in doubt consider the name to be unverified	
15	When the 10 names within each group have been verified or otherwise - forward a copy of that specific Manifest Reconciliation Sheet to the local Controller - LACC who shall, in turn, pass on same e.g. by telephone, fax, email etc. to CMC Airports Desk at airline HQ (insert here all contact details for the CMC Airports Desk at airline HQ - xxxxxxxx)	
16	Repeat procedure detailed above (items 13 to 15) until all names on the flight have been verified or otherwise (Note - each time the 'copy' Manifest Reconciliation Sheet is passed to Controller - LACC (i.e. with a new batch of 10 names added) - ensure that a suitable system is used to clearly indicate which are the 10 new names . Also ensure that the number sequence on each such sheet is logically correct e.g. sheet 2 = names 11-20; sheet 3 = names 21-30 etc.	
17	As soon as the above has been completed for ALL passenger names , deliver all completed paperwork, coupons, boarding cards etc. to the Controller - LACC	
END		





Passenger Manifest Verification (PMV) / Reconciliation Form [Sheet 1](#) (EXAMPLE)

Flight No: From: To: STD (GMT): A/C Type / No of Seats:

PAX No.	Surname (Last Name)	First Name(s)	M/F/C/I	Boarding Sequence No.	Seat No.	Tick or cross when cross-checked against relevant records below					Verified?
						Checked-in	Coupon	Boarding Card	RES System (PNR/PNL)	Other (Specify e.g. APIS; Frequent Flyer etc.)	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

EXAMPLE ONLY OF PART OF A COMPLETED VERSION

1	Samuels	Peter	M	156	20A	✓	E-ticket	✓	✓	Frequent Flyer	YES
2	Smith	A / Mr (NFD)	M	157	20B	✓	✓	✓	✓		YES
3	Smith	M / Mrs (NFD)	F	158	20C	✓	✗	✗	✓		?
4	Thomason	Charlotte	F	159	22E	✓	✓	✓	✓	APIS	YES
5	Thomason	John	M	✗	22F	✗	✗	✗	✓		NO?

NFD = No further details available

RETURN ALL **COMPLETED FORMS** (i.e. 10 names at a time) TO LOCAL AIRLINE LACC **IMMEDIATELY** - for onward transmission to airline HQ's Crisis Management Centre





PMV - Important Notes:

- * You will typically / usually carry out a PMV if yours is the accident flight's **departure** station(s)

Note 1 - If more than one '**up-line**' departure station is involved (e.g. a multi-sector flight such as airports **A** to **B** to **C** etc. - all operating under the same flight number)] - **each** departure station will need to carry out its own **particular** part of the overall PMV task. This latter should be carefully co-ordinated & overseen **centrally** by the appropriate 'airports [ground ops] department' expert staff at airline HQ

Note 2 - For pax airlines using '**ticketless ops**' - the PMV is typically actioned at **airline HQ** itself - as most (associated / corroborating) 'electronic' data will already be available there. Data not held centrally is expected to be obtainable reasonably quickly - provided the associated processes are **already** in place)

- * If accident airline operates a '**frequent flyer**' (loyalty scheme etc.) system, obtain (from wherever) the **accident flight's** associated records for use as a corroborating / info 'tool' in the PMV process

- * If **APIS** related data has been collected for the accident flight, obtain (from wherever) such data and use them as a corroborating / info 'tool' in the PMV process

- * Obtain / use any other forms / records / info available to assist in the PMV process e.g. **immigration** records, **reservation** system records (**Passenger Name Records** etc.), **ticket desk** bookings, **travel shop** / agent bookings (hard and soft copy) etc.

- * Ensure that any 'addition / deletion' (**ADL**) & 'last minute changes' (**LMC**) type info re potential persons on board the accident flight has been collected / accounted for, when conducting the PMV process. (Human error is the potential problem here as any actual ADLs, LMCs or other changes made, **may not have been recorded** (almost certainly inadvertently). Accordingly, it will be necessary to **directly contact all appropriate persons involved with the complete check-in and boarding process for the accident flight** - to confirm that all actual additions, deletions and / or other changes (if any) were correctly accounted for in the required manner. This must include positioning crew and engineers etc. + any other duty travellers who may have been seated on cockpit or cabin jump seats)

*** IMPORTANT** Do not wait until **all** names on the passenger manifest have been checked before forwarding the required information on to airline HQ - instead, forward (typically 10 names at a time) as the verification process progresses

- * Verify the accident flight's **operating crew** by requesting the Ops Duty Manager (ODM) **at airline HQ** to complete this task in conjunction with the airline's Crewing section **and** the accident flight's departure station(s). Request that ODM passes the result of the crew verification check both to you (the person in overall charge of the PMV process) and also to the CMC at airline HQ

- * If PMV is not complete within 60-90 minutes of starting, someone from airline HQ CMC should make contact with the person in charge of the PMV process / whoever to enquire about progress and to offer any advice / assistance

- * By law and for flight operations into or over **United States of America** territory - the **verified** passenger list (if such exists) must be made available to the specified US authorities **within 3 hours** of accident notification to the accident airline. The same applies within **European Union countries** (law for EU carriers and 'best practice' for others) - excepting that the time limit is now **within 2 hours** of accident notification to the airline. Similar applies in a small number of other countries





Supplement 1

PNL (Passenger Name List) + ADL (Additions & Deletions List) + Use of E Tickets

Note: The below relates to the PMV task, post major air accident - and is provided for information / explanatory purposes, in order to add some additional context & understanding to / of the task

Separate CRS and DCS

Use of the **PNL** and associated **ADLs** is the 'means' by which an airline's **Computer Reservations System** (CRS) typically 'sends and updates' a list of passengers (to be checked-in for any particular flight) to the airline's separately hosted **Departure Control [check-in] System (DCS)**

The 'first try' PNL is sent initially to all appropriate recipients - and is then updated as required by use of ADLs - sent at regular intervals and / or in real time - in order to add and remove names; change booking details etc.

Commonly Hosted CRS and DCS

Where the **CRS** and **DCS** systems are co-hosted - the latter tends to have a more effective, efficient and expeditious 'working relationship' with the former - albeit 'electronically'

However, and in theory at least, if PNL and ADL information is 'sent' in a timely manner along reliable 'lines of communication', an externally hosted (separate and 'good quality') **DCS** system should be equally capable of receiving, storing and using the information required, when required - and there should be no 'reduction of service'

E-tickets

Where appropriate, the **DCS** system also needs to 'interact' with the airline's **e-ticket** servers during the passenger check-in process. There are generally 2 ways of doing this:

Control Method

At the time that the 'flight is created' in the **DCS** (normally 2 or 3 days prior to departure date) - it (the **DCS** system) 'collates' the **e-ticket** numbers list received (as associated with all known passengers for the particular flight **at that time**) - and then 'sends a message' to the appropriate **e-ticket server** to the effect that the **DCS** is '**taking airport control**' of those **e-tickets**. Each **e-ticket** is then flagged as "**A**" i.e. 'under airport control'

Subsequent ADLs are then fed into the **DCS** (from the **e-ticket** server) as required. When the flight has departed (and for each **boarded** passenger) the **DCS** system will send an update to the **e-ticket server**, to flag each individual e-ticket record as "**F**" i.e. 'flown'

Interactive Method

As each passenger **checks-in**, the **DCS** sends a message to the **e-ticket server** to update the particular passenger's record status to "**C**" for 'checked in'





When the passenger **boards**, a DCS message is sent to the e-ticket server to update the coupon status to "L" = 'lifted'. When the flight **departs**, the DCS will send a final message to the e-ticket server to update the coupon status to "F" for 'flown'

Whether or not the DCS is integrated within the same host as the CRS and / or e-ticket server is irrelevant - as industry standard real-time messaging is used to perform the updates, and so will work essentially the same way for both integrated & external DCS systems

Note to readers from author of this information article:

'..... if you are willing and able to do so, please pass on any corrections / updates (where necessary) to me - for information contained in the above Supplement 1

Please forward via email to:

info@aviation-erp.com

Thank you in anticipation!



**Supplement 2:****PMV - More Information required as 'Standard' (i.e. not as an exception)**

Note: The below relates to the PMV task, post major air accident - and is provided for information / explanatory purposes, in order to add some additional context & understanding to / of the task

For various reasons (mostly related to commercial advantage / expedience) the greater majority of the world's passenger airlines typically gather only the basic minimum amount of information possible (i.e. even if more might be relatively easily and quickly available) re the * identity of who is **actually** boarding their commercial flights e.g.

- Passenger's Name (and not always the full name)
- Passenger's Gender
- Sequence number in which passenger boarded the aircraft
- Passenger's Seat Number
- Indication that (if) the passenger is a child with their own seat
- Indication that the passenger is an infant without a seat i.e. carried on another passenger's (e.g. a parent) lap. In such situation the infants **name** itself might not appear in the flight's passenger manifest / list at all

See front cover of **this** info article for an example of what the above might look like for real

* See also 'boxed note' on next page

Following an aircraft accident situation with a significant number of fatalities and injuries, the above (bullet-point list) information is typically not enough to make a relatively **quick** determination of who exactly was on board - primarily for the purposes of advising associated family, relatives and friends (who would **not** have been on board the accident flight) of the situation

Adding 'nationality' to a passenger's checked-in information **would** significantly improve the situation described immediately above - as **would** 'date of birth' and 'passport number'

Whilst some (a **very** small number) of airlines do collect such information (as per the last para) on check-in / boarding - **most do not**. The main reason typically given for not so doing is that 'it takes up too much time' - and thus 'costs (wastes) money'

This reason might have had a valid basis before and during the early age of the computer. Today, the gathering and storing of such details can be accomplished in very many cases at the 'speed of light' by simply scanning (swiping) a machine readable passport

Where (for valid operational reasons) what is described in the para above cannot be accomplished (which is still, today, unavoidable for some airlines / at some airports etc.) - at least '**nationality**' should be additionally recorded (for all sorts of valid reasons related to associated emergency response operations)





- * In certain parts of the world (we are particularly referring here to the European Union's 'Schengen' countries as an example) **there are absolutely no border controls** applicable to citizens of participating countries i.e. passports, ID cards etc. are **not** generally required for travel between member countries. ***This includes air travel***

If you take a look at the utter and inexcusable mess made by the 'Dutch' in the aftermath of the loss of Malaysian Airlines flight **MH 17** in **July 2014** (see next page) - and this in circumstances where the information shown in the 6 bullet points on the previous page **was** available - the associated problems would have been hugely more complex (and taken a hugely longer, corresponding time to resolve) **IF** flight MH 17 had been flying between two Schengen countries **instead!!!**

https://europa.eu/youreurope/citizens/travel/entry-exit/eu-citizen/index_en.htm

For another, expanded real-life example of the above 'difficulties' - one only needs to look at the **Germanwings** 'crash' of **24 March 2015** (First Officer deliberately flew the aircraft into the ground [to commit suicide] 'killing himself [and the other 149 persons on board] instantly on impact)

For those so 'interested' - follow the info found in the 'boxed' info on page 8





Supplement 3:

MH 17 - Passenger Information (October 2015)

On 7 July 2014 Malaysian Airlines (MH) Flight 017 was shot down by a Russian missile whilst over eastern Ukraine (en-route from Amsterdam to Kuala Lumpur)

There were no survivors from the 298 persons on board - many (196) of whom were Dutch citizens

In late 2015 the Dutch Safety Board (responsible for Air Accident Investigation in the Netherlands) released a 'damning' report (Part 3 of 3 Parts) on how most 'official' responding Dutch government organisations (at various areas of response and levels of hierarchy - starting with top-level government ministries) **badly mishandled** the process of finding out (in a timely manner) 'who' was actually on board MH 017

This, in turn, lead to unacceptable delays in advising associated families (in the Netherlands) of Dutch fatalities from the flight

The report referred to just above can be found at:

https://www.onderzoeksraad.nl/en/media/attachment/2018/7/10/f95ffc3669c4report_mh17_passengerinformation.pdf

Its contents should be very disturbing for airline related 'emergency response planners' in general - and for the 'air travelling' public in particular

