

飛行員的短缺

從航空公司招募新人與訓練計畫追不上機隊的擴充時，正逐漸顯現飛航組員的短缺現象。航空業是否能夠很快地找到解決方案？

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從飛機的訂購數字顯示，航空公司投資新型飛機的數量史無前例，但並未包括相關專業技術的交易，這些專業技術對新型飛機的維護與操控而言，依然是不可或缺的。造成的結果是，全球負責「初始訓練」(ab-initio training)的機構也許能量不足，當有訓練需求時無法即時支援，因為缺少適當的專業技術人員來執行訓練工作。

國際民航組織(文後簡稱ICAO)發覺此種風險因素，正如2014年12月上旬在加拿大蒙特婁總部舉行的第二屆「下世紀飛航專業人員」(Next Generation of Aviation Professionals, 文後簡稱NGAP)會議，主席Olumuyiwa Benard Aliu博士在會中解釋道：「國際民航業者在即將來臨的數十年間，其最優先的事務，事實上全都源自於在建立網狀組織的能量時，我們所一再加強的規劃。我們正面對世界各地的飛行員、飛航管制員、工程師與機械工等都短缺，以及必須加速訓練與驗證飛航專業人員的情境；此外，ICAO的領導素養與專業作為將是關鍵因素，新的管理者必須帶領他們，這將有助於我們全球網狀組織的存活力與持續力。」

在過去的廿年之間，有多次預測飛行員會短缺，但事實上並未發生。其中有幾次預期航空公司會缺少飛行員與工程師，但有多種原因而減輕衝擊，諸如：經濟不景氣、2001年911恐怖攻擊事件後的飛航旅遊蕭條、2006年飛行員的工作年齡從60歲延長至65歲，以及2008年全球金融機構的破產風暴等。所以說，最近預測飛航專業技術將會有不足之處，這是否會如同以往的論述，只是一種不加思索的妄想？

不是有妄想

歐洲「國際飛行員專業訓練集團」(International Professional Pilot Training Group, IPPTG)訓練機構的Peter Moxham資深主任說：「我不認為這是一種妄想。大約在四至五年之間，我們將會看到航空公司無法招募到，其訓練能適用於現今科技的飛航組員。」他預測的結果是，當



世界各地的航空公司，訂購飛機的數量正在突破紀錄；但其專業技術訓練的腳步，尚未趕上先進的科技。

遭遇到輕微的相關技術故障，或是日常的天氣挑戰時，飛航組員在管理他們的飛機而發生失誤，這將會造成許多航空公司的災難。

持續蒐集飛航專業技術不足的證據。當前的全球航空運輸業，重新獲得一致性的穩定成長契機——如果有區域性差異，係來自金融蕭條——世界上賺到錢又能自由運用的民眾大幅增加，可預知的是，未來飛航旅遊的頻率將會持續地健康成長。事實上，飛航專家早就說出此種趨勢，航空公司的認知也放在那裡清楚可見，但這很有可能只是短暫的現象。

從911恐怖攻擊事件之後到最近幾年，傳統航空公司看到他們努力的短期目標，不單是面對不穩定的巨額經濟成本，還有廉價航空公司的班表無情增加之挑戰；他們不願意承擔訓練飛航組員的投資風險，因為如果航空市場突然再次下滑，這些訓練都不是需要的。另就長期目標而言，Gulf航空公司的成長造成市場的主要影響，有許多專業技術人員都被他們的營運中樞所吸引；近年來更加嚴重的是，Norwegian航空公司購買了廉價飛機，並以經營中/長程航線為市場標的。所有這些新的勢力，強力地激勵了飛航旅遊的旺盛需求，以及增加現有專業技術人員的供應需求。

英國「飛航組員訓練中心」(Crew Training Centres, 文後簡稱CTC)商務辦公室Anthony Petteford主任表示, 911恐怖攻擊事件是飛航組員招募與訓練態度的分水嶺。他說, 該事件發生之前, 傳統航空公司參與飛航組員的招募程序, 但在事件之後, 因市場蕭條而選擇不參與; 當有新的飛航組員需求時, 只會去飛行人力仲介市場聘用之。航空公司滿意此種聘用方式, 導致「飛航訓練機構」(Flight Training Organizations, 文後簡稱FTO)去執行招募工作, 而參與飛行訓練的學員則支付仲介費用, 以及FTO分擔結業學員可能未獲聘用的風險因素。如果航空公司突然需要飛行員, 已經結業的學員就等在那裡——雖然不是量身定製的招募程序, 但至少是有證照而合於法規的。

預算的需求

廉價航空與傳統航空公司的處境大不相同: 他們發展快速, 所以需要飛行員的招募與訓練計畫。他們遭遇初始訓練需求與飛航組員素養的整合, 以及從FTO招募部分飛航組員的問題。Moxham主任解釋道: 「這非常值得關注, 廉價航空公司的運作模式有極大的改變頻率——現在他們把金錢用在『多組員飛行執照』(Multi-crew Pilot Licence, 文後簡稱MPL)的訓練, 並提供傳統航空公司從未考慮過的生涯規劃。」他接著說: 「當你在EasyJet或Ryanair等廉價航空公司工作, 五年內就可以升到機長非常好的待遇, 並且在整個飛航生涯中, 還能持續獲得很好的訓練; 若是在British航空公司工作, 就需要十至十五年才能升到機長的位置, 請問你為什麼要去那裡?」

但是要整體來看航空業, 從航空公司的會計師對未來專業技術人員的投資展望觀之, Moxham主任解釋道: 「採購一架飛機很容易有的正當理由: 機體是公司的一份固定資產。以此來說, 飛行員好像是變成了流動負債。雖然兩者都是不可或缺的。」會計師如此誠實地思考是相當的短視, 他建議道: 「支援專業技術的投資不當, 意味著投資成本將會增加。好的飛航組員將會變成短缺, 高待遇的需求就會重現, 如此必將造成財務上的波動。」

依Petteford主任的統計, 如果英國和歐洲的市場需求突然增加, 結訓獲得執照而尚未就業的飛行員, 只給航空公司三至六個月的聘用緩衝期。他確信, 此種現實正開始衝擊傳統航空公司的思維。他說已有證據顯示, 傳統航空公司使用他們品牌的知名度, 提升以往不曾運用過的生涯規劃指導; 此外, 傳統航空公司也不再把飛航組員的招募市場, 完全交給FTO來辦理。

Moxham主任就以當地的改變案例指出, 以英國為受訓基地的FTO而言, 不久之前的學員, 係來自全球各地的航空公司; 而目前的學員, 則幾乎全都來自國內的市場。



當飛行員看起來能夠擔負起責任時, 飛機好像只是一份固定資產而已; 但在事實上, 兩者是不可缺的。



911恐怖攻擊事件是飛航訓練態度的分水嶺。

他也觀察到, 雖然訓練需求明顯的升高, 但FTO的信心並沒有同步增加; 因為在英國的主要訓練單位中, 只有CTC擴張其訓練能量, 而其他單位——有鑑於航空業變化無常的經驗——依然是謹慎的保守視之, 至於花錢的擴大投資, Moxham主任說: 「仍然是緊縮的。」

如果歐洲的飛航旅遊市場, 開始緩步地擴張。Moxham主任表示, 在那個時候, 許多人心目中以為同樣稱做Lufthansa的飛航訓練與航空公司是一體的, 其實從多年前迄今, 飛航訓練都是獨立自主的FTO, 但目前的新進學員明顯地少於以往的正常人數。有很多Lufthansa結訓後等待就業的飛行員, 所以, 採用區域性飛行員來支援整個歐洲地區的藍圖, 並未能平等地推廣運用。

Lufthansa前機長Dieter Harms先生——曾在ICAO工作而負責MPL系統的定義, 因而被尊稱為「MPL之父」——他說: 「在即將來臨的年代, 事實上需要有素質的飛行員, 就算全球的機隊成長數量只達預期的50%, 也明確的顯示這不是一種妄想。但正如我們都知道的, 實質的成長率會因世界的不同地區而有差異; 歐洲的成長率是最為平緩的地區, 因此其訓練的能量足以符合需求。」自從離開Lufthansa之後, 他仍在他的Harms公司中擔任飛航訓練顧問。

問，持續深入關注飛行員的供需事宜。

短視的現象

例外的是，一些歐洲的廉價航空公司。Ryanair廉價航空公司的Ray Conway機長解釋道：「委員會對採購飛機的計畫沒有疑義，也不考慮飛航組員的訓練需求、年齡，以及任職期限等較短視的問題。今年我們將依流程訓練600位新的副駕駛，以及計畫提升超過150位新的機長。我們的所有訓練課程都已完成簽約。截至目前為止，Ryanair公司尚未經歷過任何具有吸引力、勝任，以及自信心的飛行員，來填滿訓練計畫(亦即尚有訓額)。固定班表、家鄉駐地、新飛機，以及在2019年可能大量控管的波音737客機等，都是大多數人在個人的飛航生涯規劃時，具有非常吸引力的議題。」

Harms先生對跨越大西洋的觀察：「美國飛行員的短缺是自己造成的，因為法規的新需求是不幸的開端；依據Part 121航空運輸的飛行員認證之副駕駛資格需求(不只是商務飛行員的執照)，其總結是根據致命的謬論，就是以累積的飛行時間來對照實質的勝任需求。美國飛航業的圈內人，正在努力試圖改變這種不愉快的情境，以及運用『基於勝任』(Competency-based)訓練的原則來尋求解決方案。」

在美國高度受惠的訓練機構，諸如：North Dakota大學、Embry Riddle航空大學等，已經在為專業飛行員層級課程的蕭條，尋找新的參訓人員。確信會這麼做的原因是，參加訓練的費用非常便宜，以及配合Colgan航空公司在紐約州水牛城失事後，國會所努力通過的法條——該法條Harms先生歸咎於——只有航空公司在聘用飛行員的資格需求，必須擁有1,500飛行小時或更多(譯註)。飛行員層級課程只提供稍微多於200小時的飛行時間；因此，完訓學員不是需要在學校多飛幾年，就是需要在普通航空部門中付費飛行。

• 譯註：2009年2月12日晚間，Colgan航空公司一架Dash 8 Q400型渦輪螺旋槳客機在紐約州水牛城(Buffalo)機場附近墜機，機體撞入民宅引爆大火，共計50人罹難(4名機組人員、44名乘客<孕婦乙名>、地面乙名)。依美國國家運輸安全委員會調查報告，失事的可能肇因：飛航組員缺乏睡眠、疲勞飛行、組員資源管理不當、失速操控不當等。事故後，美國修改法規以確保飛航安全，飛行員進入航空公司由飛行時間250小時大幅增加至1,500時。

美國區域航空公司協會表示，在現今市場指導下的飛航生涯規劃，開始於高中與大學就讀期間，以及尋找有能力與學生早期建立關係的某些航空公司，並提供專業方針以經由訓練來加入航空公司。美國某些區域航空公司，已



在美國，飛行員最少必須擁有1,500飛行小時的經驗。

經為了飛行員不足而必須停飛航線，所有的跡象都顯示，這種情境將會更加頻繁的發生。

區域的短缺

自從區域航空是主要航空公司獲得他們大多數副駕駛的來源，此時提供副駕駛的單位與網狀組織的航空公司，可能需要即時提出一套整合解決方案以創造能見度——以及吸引力——飛航生涯經由區域而走入主要航空公司，只是確保供應不會中斷。Harms先生的觀察是，停飛航線將會很快地成為正式運用的方法之一，俾配合飛航組員的供需現況。

他有一些較寬廣的觀察，不只是供需面的現況而已，還包括——採用什麼方式可以配合需求的增加——同時能確保品質。Harms先生說：「對飛行員需求最關鍵的區域，分別是亞洲與中東地區，因為亞洲錯失建立自己執行『初始訓練』能量的機會，不得不依賴美國、澳洲，以及少部分歐洲地區的飛航訓練機構，至少在最近是如此。因此，當美國開始運用其國內的訓練能量來滿足自我的需求時，成長快速的亞洲航空公司，就將會遭遇到極為嚴峻的困擾。」

至於中東地區，就展現了一些先見之明。Harms先生說：「中東的大型航空公司，看起來就瞭解到此種威脅。Etihad航空公司已獲得位於阿拉伯聯合大公國的Horizon飛航學院訓練，也即將開始他們自己的大規模MPL計畫。Qatar航空公司則獲得位於新加坡的FTO、英國的CTC，以及卡達國的Qatar航空學院等訓練機構的預約，以合作進行長期的MPL計畫。」

Harms先生比某些專家樂觀，但在其評估結論加上關鍵性的附帶條件：「我相信，航空業在最後將會找到飛行員供需的平衡之道，並且不會降低品質的需求；但前提是，必須擁有足夠的檢定合格師資。」這些合格師資，必須確保品質的執行「基於勝任」訓練標準，而不是採用已

過時/失效的標準。

Harms先生表示，基於ICAO的標準這些全部都能被理解，但他提出警告：若是合格師資的短缺問題沒有解決，以及師資未能獲得獎勵而降低薪資，此時好的訓練情境將會失去控制。他解釋道：「2013年12月在蒙特婁ICAO的MPL研討會上，獲得共識的最關鍵必要條件之一是，確保座艙組員的可用數量，能夠符合機隊的預期成長數量。民航業者必須理解與接受，針對師資工作能量的投資是無法避免的，如此才能確保預期中的未來成長。」

他臆測民航業者能理解其提議：「訓練品質的降低，不會是一種選項。」這是Harms先生的最後簡短建議。

從另一個方面來看，Moxham主任就沒有那麼樂觀：「以全球為基礎的角度觀察，系統無法訓練出足夠的飛行員——事實上——期許發展快速的國家培養自己的飛行員，自然會導致標準的降低。近年來的所有失事案例，大多指向飛航組員不瞭解問題，或是無法克服事故的發生——這全都源自於訓練品質的不良，或是訓練預算的緊縮。大多數人在受訓時，將會無法獲得較好的品質，以及所有的訓練部門都是非常的忙碌。」為了反制品質遭到威脅，「歐洲飛航安全機構」(European Aviation Safety Agency, EASA)希望能導入基於勝任的訓練需求，運用在所有的訓練階段——初始訓練、機種檢定，以及年度複訓——並且推動航空公司在年度複訓時，能接受替代訓練與品質計畫。問題是，經由立法程序來推動這些改變，還得花上許多年的時間。

航空公司與訓練機構在執行這些工作時，其思考是僵化短視的；相對於ICAO的理想主義，其推動在支援專業技術部門產生一些動力，特別是在開發中的國家及發展快速的區域。這是NGAP計畫在最近的發表：「阿拉伯聯合大公國Emirates航空公司的ICAO代表人Aysha Alhameli機長，提出一項新的『飛航發現計畫』(Aviation Discovery Program，文後簡稱ADP)合作案，合作單位包括：美國聯邦航空署(FAA)學院、美國西密西根(Western Michigan)大學、法國民用航空大學(ENAC)、非洲飛航訓練機構(AATO)等。」Alhameli機長進一步解釋道：「除了初始階段的資訊活動，ADP的目標是鼓勵與驅動非洲這塊飛航的新開發地區，進而協助非洲飛航訓練機構。ADP小組同意規劃其發展藍圖，並將在2015年夏季的NGAP工作團隊中提報進度。」

不管ICAO所推薦的工作部分，如果大多數的航空公司仍然認為，飛行員與工程師的聘用程序只是一項仲介商品，那麼NGAP計畫針對風險因素的努力心血，將會是白忙一場！



中東的航空公司正在投資MPL計畫，以因應飛行員逐漸短缺的趨勢。

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VANISHING PILOTS

An aircrew shortage is looming as recruitment and training fails to keep pace with fleet acquisition plans of airlines. Can industry come up with the answer, quickly?

DAVID LEARMOUNT

Aircraft order backlog figures show airlines are investing in unprecedented numbers of new aircraft, but not in the skilled trades that are still needed to maintain and fly them. As a result, the global ab-initio training industry may have insufficient capacity to cope with demand when the existing, rather shallow pool of skilled personnel starts to dry up.

ICAO is alive to this risk, as council president Dr Olumuyiwa Benard Aliu explains: "International civil aviation's greatest priorities over the coming decades virtually all derive from the projected doubling of our network's capacity. The shortage of pilots, air traffic controllers, engineers and mechanics we are facing around the world, as well as the need to accelerate training and certification for these aviation professionals, and the new managers who will need to lead them, are key areas where ICAO's leadership and action will be instrumental to the future viability and sustainability of our global network." In early December 2014, the organization held its second Next Generation of Aviation Professionals (NGAP) conference at its Montreal headquarters.

Several time in the last 20 years, pilot shortages have been forecast but did not materialize. Airlines expecting to be short of pilots and engineers have, several times, been reprieved: by economic recessions, by an air travel depression following the 11 September 2001 terrorist action, by the extension of the pilot working age from 60 to 65 in 2006, and finally by the global banking crash of 2008. So is the latest forecast of a skills shortage simply a mirage, like the other predictions were?

NO MIRAGE

Peter Moxham, European training industry veteran



Airlines around the world are ordering aircraft as never before, but the pace of skills training has yet to keep up with the advancement in technology

and chairman of the International Professional Pilot Training Group (IPPTG), says: "I do not think it is a mirage. In about four to five years we will see airlines unable to recruit air crew trained suitably for today's technology. The result of that, he predicts, will be yet more airline disasters caused by crew failures to manage their aircraft when confronted with relatively minor technical malfunctions or routine meteorological challenges.

The evidence for a sustained skills shortfall is gathering. The consensus on air transport growth today is that the world is recovering steadily – if with regional differences – from the financial crash, increasing numbers of world citizens are acquiring a disposable income, and air travel is forecast to maintain a healthy growth rate for the foreseeable future. In fact industry experts say that early signs of airline awareness are already there to see, but this could be ephemeral.

In the years from the 9/11 attacks until very recently, the legacy airlines saw their short-haul business

struggling not only with the vagaries of macro-economics, but also the inexorable rise of the low-cost scheduled carriers, so they were reluctant to risk investment in training crews they might not need if their market suddenly dipped again. On long-haul, the rise of the Gulf carriers has been a major influence on the way business is conducted, and they are attracting a lot of skilled personnel to their hubs, while more recently, Norwegian has brought a low cost model to the medium/long-haul marketplace. All these new forces are proving powerful stimulants to travel demand as well as increasing the demand for existing skilled people.

CTC Aviation's chief commercial officer Anthony Petteford sees 9/11 as a watershed moment in airline attitudes towards recruitment and training. Before that event, he says, the legacy airlines were involved in the process of recruiting pilots, but in the slump that followed 9/11 they opted right out, and just went to the retail market when they needed new aircrew. They were content to let the flight training organizations (FTO) do the recruiting, the student pilots to do the paying, and the FTOs to share the risks of possible graduate unemployment with the trainees. Then if the airlines suddenly needed pilots, the graduates were there – not bespoke recruits, but at least licensed.

BUDGET APPEAL

The situation of the low-cost carriers different: they were expanding fast, so they needed a pilot recruitment and training programme. They met their ab-initio needs with a combination of cadetships and taking up some of the FTOs' "retail" output. Moxham explains: "It is very noticeable that the low-cost operators are changing at a massive rate-they are now putting money into training for MPL [multi-crew pilot licence] and offering career structures that the legacy carriers simply do not wish to do. "He adds Why go to British Airways and take 10-15 years to get a command when you can achieve this in five years at EasyJet or Ryanair where commanders are very well paid and get good continuation training throughout their career?"

But looking at the industry as a whole, Moxham explains the airline accountants perspective on investment in skilled people for the future: It is easy to justify an aircraft order: airframes are an asset. Pilots are seen as a liability. Yet you need both." Accountants who genuinely think like this are being shortsighted, he



Airframes are an asset, while pilots are seen as a liability, but both are needed



9/11 was a watershed in attitudes to training

suggests: "Failure to invest in the skills supply will mean increasing costs for them. Good crew will become scarce and able to demand high salaries again, and finances will go into a spiral."

Petteford reckons that, in the UK and European market, the pool of unemployed but employable pilot graduates only gives the airlines a buffer of about three to six months if demand were suddenly to rise. This fact, he believes, is starting to impinge on the legacy airlines' consciousness. The evidence is, he says, that they are beginning to use their brand names to promote piloting as a career in a way they have not done for years. The carriers are no longer leaving it entirely to the FTOs to do the marketing for them, according to Petteford.

Just as a local example of this change, Moxham points out that the UK-based FTOs,

Which not long ago used to get their students from airlines all over the world, are now almost fully occupied just servicing the domestic market. But, he observes, this apparently buoyant demand does not seem to be engendering much confidence in the FTOs, because among the main UK schools, only CTC is expanding

capacity while the others – through long experience of airline fickleness – are still being cautious. Money for expansion, says Moxham, “is still tight”.

European air travel is expanding, if slowly. Meanwhile, Lufthansa Flight Training, synonymous in many people’s minds with the airline but actually an autonomous FTO for many years now, at present has a significantly lower cadet intake than it normally does, according to Moxham. There is a large pool of Lufthansa-trained graduate pilots awaiting full employment, so the local pilot supply picture across Europe is not evenly spread.

Former Lufthansa captain Dieter Harms – also dubbed “father of the MPL” for his work with ICAO defining the multi-crew pilot licence system – has this to say: A substantial demand for qualified pilots in the coming years is fact, even if the predicted global fleet growth is only 50% of the numbers which are presently anticipated; so it definitely is not a mirage. But as we all know, the growth rates vary substantially between the different parts of the world. Europe has the flattest growth and has enough training Lufthansa, he has still been deeply involved in pilot supply through his company Harms Aviation Training Consultancy.

SHORT-SIGHTED

The exceptions in Europe are some of the lowcost carriers. The chief pilot at Ryanair, Ray Conway, explains: “There is no doubt that committing to an aircraft purchase programme without giving consideration to crew training requirements is short-sighted in this day and age. We will train in the order of 600 new first officers and plan to promote in excess of 150 new captains this year. All of our courses are well subscribed. So far Ryanair has not experienced any issues with attracting capable, competent and confident pilots to fill the training plan. Fixed rosters, home bases, new aircraft and the possibility of a Boeing 737 Max command in 2019 is a very attractive proposition for most people setting out on a career in aviation.”

Harms looks across the Atlantic: “The US pilot shortage is home-made, as it is triggered by the unfortunate new requirement the Part 121 co-pilots need an Airline Transport Pilot certificate {not just a commercial pilot licence}, a conclusion which is based on the fatal fallacy that the collection of flight hours implies the existence of the necessary competencies. The



Airlines in the Middle East have invested in MPL programmes in view of the looming shortage

stakeholders in the USA are currently trying hard to correct this unpleasant situation and to find a solution using the principle of competency-based training.”

In the USA, highly favoured training organizations like the University of North Dakota and Embry Riddle Aeronautical University have been seeing their intakes for professional pilot degree courses slump. This is believed to be because of the extremely low entry pay pilots get with regional carriers, combined with the effect of the Congressional law passed following the Colgan Air accident at Buffalo – the law Harms referred to – making it a requirement for airlines only to employ pilots who have had 1,500 flying hours or more. The degree course gives them little more than 200h so they either have to instruct for a few years or even pay to fly in the general aviation sector.

The US Regional Airlines Association says it is now marketing piloting as a career at high schools and universities, and is looking for ways to enable member airlines to establish early connections with students at school and come up with career paths through training into the airlines. Some regionals in the USA have already had to close down routes for lack of pilots, and all the signs are that more of this will happen.

REGIONAL DROUGHT

Since the regionals are where the majors get most of their first officers, there is going to come a time when the feeders and the network carriers may have to come up with a joint solution to create a visible – and attractive – career path through the regionals into the majors just to ensure supply does not dry up. Harms observes that closing down routes will soon be one of the regularly-used ways of matching crew demand with supply.

He has some broad observations, not only on

supply and demand, but also on whether – in the race to meet an increasing demand – quality can be maintained. Harms says: “The most critical pilot demand is the one in Asia and the Middle East, because Asia missed the opportunity to establish its own ab-initio training capacity and relies on ATOs [aviation training organizations] in the USA, Australia and for smaller numbers in Europe, at least for the time being. So when the USA starts using its internal pilot training capacity to satisfy its own needs, the fast growing Asian airlines will run into severe trouble.”

The Middle East, Harms says, has shown a little more foresight. “It looks like the big airlines in the Middle East have realised the threat. Etihad has acquired the Horizon Flight Academy in A1 Ain and will start their own large-scale MPL programme soon. And Qatar Airways has engaged in long-term MPL programmes with FTOs in Singapore (STAA), the UK (CTC) and with the Qatar Aeronautical College.”

Harms is more optimistic than some experts, but he adds a critical proviso at the end of his assessment: “I am convinced that finally the aviation industry will find a way to meet the demand for pilots without reducing the quality requirements, but only if there are enough qualified instructors.” And those instructors must be qualified to train to competency-based standards, not the old pass/fail criteria.

All this is understood at the ICAO level, says Harms, but he warns that if the shortage of properly qualified instructors is not sorted out and if instructors are not incentivised by offers of decent pay, the situation will go out of control. He explains: “This was recognised during the ICAO MPL Symposium in December 2013 in Montreal to be one of the most critical prerequisites to assure the availability of enough cockpit crews to allow for the predicted fleet growth. The civil aviation community has to understand and to accept that it is unavoidable to invest in the instructor workforce to assure the anticipated future growth.”

Harms adds a brief but final comment which suggests he assumes the industry recognises this as a given: “Reducing training quality is not an option.”

Moxham, on the other hand, is less optimistic: “The system cannot produce enough pilots on a global basis – fact – and the natural wish of fast-developing countries to ‘grow their own’ is leading to a lowering of standards. All recent accidents have been down to the crew not



US pilots need to have flown at least 1,500h

recognising the problem, or being unable to cope with events – all of which is down to poor quality training or skimping financially. More people being trained will not lead to better quality, and all training establishments are bust.” EASA says it hopes to counter the threat to quality by introducing competency-based training requirements at all training phases – ab-initio, type rating and recurrent training – and by driving the airlines to take up alternative training and qualification programmes for recurrent training. But driving these changes through the rulemaking process will take some years.

In direct contrast to the gritty short-term thinking of those working in the airlines and training industry is ICAO’s idealistic drive to generate some momentum in the skills supply sector, especially in under-developed and fast-growing regions. Here is a recent announcement about its NGAP programme: “ICAO Council representative for the United Arab Emirates Capt Aysha Alhameli announced a new collaborative aviation discovery programme [ADP] at the event, coordinated between the FAA Academy, the Western Michigan University, the Ecole nationale de l’aviation civile (ENAC), and the Association of African Aviation Training Organizations [AATO]”, he explains, adding: “Beyond its initial information campaign, the ADP’s objective is to excite and motivate youth throughout African regions, facilitated by AATO. The ADP team has agreed on a roadmap and will submit a progress report to the NGAP taskforce in summer 2015.”

Despite this commendable work by ICAO, if most airlines continue to think of pilots and engineers as a retail commodity, its NGAP efforts risk being wasted.

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