

Aviation Psychology, Security-Safety in the Skies, and Pilots Management in Civil Aviation in Europe

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What we can learn from the tragic event of Germanwings Airbus 320? Certainly much, and the opportunity should not be overlooked nor missed!

In the management of pilots and commanders, the first crucial step is to choose and select the right people.

When, in 1916, the Italian psychologist and psychiatrist Agostino Gemelli was commissioned by the Supreme Command to deal with the selection of military pilots, in collaboration with one of the most known Italian champion pilots, Francesco Baracca, he studied and observed the professional role of the military pilots. He himself wanted to experience it, and conducted an aircraft obtaining the license.

On this basis of knowing, Agostino Gemelli realized the importance of a strong psychological selection of the pilots, declaring that the only medical exams could not be enough to choose the better candidates. With this goal in mind, Agostino Gemelli founded the *Laboratory of Psychophysiology*.

A century has elapsed since then, but it does not seem that his teaching has been collected. Today, in the field of psychology applied to personnel assessment, we have three main methods of psychological assessment that should be used especially for positions of greater professional and/or managerial responsibility:

- (1) the in-depth, clinical-organizational individual interview,
- (2) the group methods - like Assessment Centers - and
- (3) a myriad of psychological tests, questionnaires and projective techniques.

In order to understand the candidate's personality, and to evaluate and define the pilot profile, we must apply all three these methods, by using different examiners and clinical-organizational psychologists, integrating information and building a sufficiently reliable representation of the candidate's personality as a whole. To realize this goal we need to carry out psychodiagnostic in-depth interviews lasting several hours of time, expand the range of questionnaires and psychological tests – for example not limited to the MMPI or PAI – using also the projective techniques, and applying the group assessment methods that can offer interesting information on a wide range of personal qualities (not only of relational sphere).

What must be avoided is relying on a single test (the MMPI, PAI, or another else), performing the psychological interview only in rare cases and on the advice of the medical doctor, and completely ignoring the evaluation group.

Once overcame the first and basic selection stage, the candidate pilot enters in the training setting: during this time he should be followed regularly and cyclically monitored from the psychological point of view – and this is not the case today -. This means that we have to observe the candidates and the group dynamics during the training at flight schools, repeat tests and apply new questionnaires, conduct psychological and motivational interviews, offer the support of psychological counseling and coaching where appropriate. The presence of psychologist-tutors during the training weeks would be - at this stage of life of the candidate pilot - absolutely essential, but today does not exist!

As the career of the airline pilot begins, annual medical checks have to take off.

These are, however, “medical checks” in which the pilot’s psychological, existential and organizational life (because the airlines are in effect complex work organizations) is not taken into account.

It would be useful to look at what is done in the world of the largest multinational organizations in which human resources placed in role or positions of high responsibility are assessed, monitored, trained, coached, along the entire career path, in a light meritocratic way. Why aren’t this kind of management and development human resources processes applied to the pilots and to airline personnel? Why a psychological assessment and an accurate evaluation of the leadership skills and the whole mental status isn’t required to become commander?

In order to increase safety, the commercial air traffic is expected to prepare a professional network of psychologists and psychiatrists, as counselors, that can be questioned at the right times when the pilot lives difficult, personal, relational and existential situations. This network would be made available not only to pilots and commanders, but also to flight attendants.

There is also a third category that seems to be totally neglected in the current debate: the air traffic controllers. These are people who have in their hands and in their eyes the management of the heavens. Professionals that perform a highly stressful job where levels of cognitive attention and mental concentration must remain at the highest levels for prolonged periods of time. What we really do to select, train, consult, assess and adequately support this category of high skilled professionals?

Thus, there are many ideas that could now be taken into account in order to improve the world of flight and make air travel safer. Achieving this goal will be possible if we’ll go past the dichotomy - and often the lack of understanding - between medical doctors, psychiatrics, and psychologists; if we’ll assign the same work dignity to the job of psychologists than that of physicians and psychiatrists; if we’ll organize professional teams where professionals coming from different scientific backgrounds can really integrate their motivation and knowledge, avoiding (for example) power struggles for those who have to say the final word on the suitability of a candidate in the selection process.

I would also emphasized that, for many decades, a specialized area of the applied psychology called *Space & Aviation Psychology* has been existing: a scientific-professional field in which psychiatrists and psychologists work together having the aim to study every aspect of the flight conditions and situations, working on the so-called “human factor”.

It would be very useful and intelligent if this discipline would take at least in some consideration by those who have the authority and the power to decide how to set up management programs for all airline personnel.

I recognize great suitability of the joint statement issued by the *European Federation of Psychologists* and the *European Association for Aviation Psychology*, titled “Recurrent mental health evaluation essential complement to psychological selection of pilots”, and signed by Robert Roe (president EFPA) and André Droog (president EAAP) in which, among other things, it states that: “EFPA and EAAP emphasize the importance of recurrent evaluation of pilots’ mental health both in the context of the periodic medical examination (JAR-FCL-3) and of well-accepted airline policies and procedures to ensure fitness to fly. They point out that psychologists are at all times ready to provide specialist expertise”.

If we seriously want to try to prevent other incidents similar to the one just happened in France we need to completely rethink the selection, training, assessment, counseling and management of the flight personnel - not only pilots, but also crews and air traffic controllers - from the very early stages of the selection procedures until the final stages of the professional career.

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