

TEST TEAMS . . .

forceful personalities. Anyone in a team must be allowed to express his opinions, and, indeed, to do so emphatically. It is frequently only after a most heated argument, particularly among young people, that the right answer will come out. However acrimonious the argument, if the people concerned are all really interested in getting the right answer there will be no lasting bitterness—only, perhaps, a better appreciation that none of us (not even the youngest!) is infallible.

On occasions there may be one concerned in the argument who, against all apparent logic, still persists in trying to push his own viewpoint. In such cases it is usually unwise to damn him outright as an obstinate young so-and-so. There is still so much unknown in flight test work and our methods of qualitative assessment are still so unscientific that there be some good reason for his obstinacy, even though he himself cannot properly express it. His attitude may, of course, be induced by self-complacency or by stupidity: if it is the former you blame him, if the latter you blame the man who took him on and kept him in the team.

The whole problem of discordant elements has been given a lot of prominence here, not because those elements are peculiar to flight-test work, but because the very nature of this work tends to aggravate their harmful tendencies. These elements are usually most active but most imperceptible when work is light and the job is dull. The extent of their disruptive efforts, however, becomes very evident when the discordancy induced amplifies a crisis.

Disruptive Crises.—When there is a crisis in flight-test work the design staff are likely to be overworked and tired; the test pilots may well be slightly "on edge"—perhaps more than slightly, according to their temperament. Then it only needs a small seed of suspicion and a bit of no-confidence for a minor crisis to develop into a major row which will require a considerable effort to quell.

In order to appreciate the need for a really well-ordered, temperamentally well-graded, confident team one must visualize the kind of disaster they may have to face. It may occur in the very last stages of development of an aircraft, when tests seem to reveal that only some major structural modification can eliminate a dangerous aerodynamic vice. Then the test pilots are under very severe questioning (to put it mildly) to make certain that the vice they report is really serious. The designer is under pressure, either to disprove the vice or produce some magic minor modification to eliminate it. The management are under stress, wondering whether it will all turn out to be a "hare" or whether, in fact, the production line is at that very moment expensively churning out unwanted scrap. If the disaster turns out to be a real one,

then it is deep in human nature to look for a scapegoat. If a witch-hunt is allowed to start it is a paradise for ambitious discordant elements. At such a time the management's responsibility will be vastly lightened if the team was sound before the storm broke; but—with a million pounds down the drain—they will still have to find a few encouraging words to say to those who saw "the things they gave (five years of) their life to, broken." By doing so they will help to keep the team together. When the aircraft flies again, and flies better, a good team will have become a better one for its months of tribulation.

Interdependability of the Experimental Team.—It is hoped that the paragraphs above will have given an impression of the extent to which every section in the organization for flight-test depends on the rest. The pilots depend entirely on the skill of the design team and the reliable work of the technical staff, the maintenance crews and the inspection. The design staff depend almost all the time on the opinions of qualitative assessment of the pilots. If the pilots sometimes talk a language rather different from that of the design staff it may be puzzling; but interpretation is possible. Pilots may exaggerate a fault or, worse still, may fail to detect one, but on the whole the design staff get the answers they deserve to the questions they put.

The management may get maddened by the delays and uncertainties of the flight-test team but it will still pay them to have a strong one. The policy of keeping a test team small and junior so that they won't have enough influence to hold up production by minor criticisms is now out-dated. Modern pieces of machinery are seldom designed outright; they are mostly evolved by trial and error—the trials are done by the flight-test team, the errors are made by the design staff!

W. J. JAKIMIUK'S NEW POST

THE appointment is announced of W. J. Jakimiuk to head the sales division of Sud-Est Aviation. Mr. Jakimiuk is well known for his notable "P.Z.L." designs while, in pre-war years, he was chief engineer of the National Aircraft Establishment, Warsaw. From 1939 to 1940 he was with S.N.C.A.S.E. and for nine years thereafter was chief engineer of de Havilland Canada, where he contributed to the war production of the Anson and Mosquito and designed the Chipmunk. On his return to England he directed the development of the Vampire and Venom night fighters. In 1951 he returned to S.N.C.A.S.E. as director of special research, being responsible for development of the Baroudeur trolley-launched attack aircraft.

DOWN TO THE SEA:
"BONAVENTURE"
READY FOR TRIALS

THERE is something strikingly Turner-esque about this photograph of the 18,000-ton Canadian aircraft carrier H.M.C.S. "Bonaventure" as she was towed recently from her Belfast berth for preliminary sea trials. Built by Harland and Wolff, she was originally named H.M.S. "Powerful" and was launched in February 1945, only to lie uncompleted until July 1952, when she was purchased by the Canadian Government to replace H.M.C.S. "Magnificent," loaned to Canada by the Royal Navy. Subsequently she was given her present name.

