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# International **Transport Workers' Journal**

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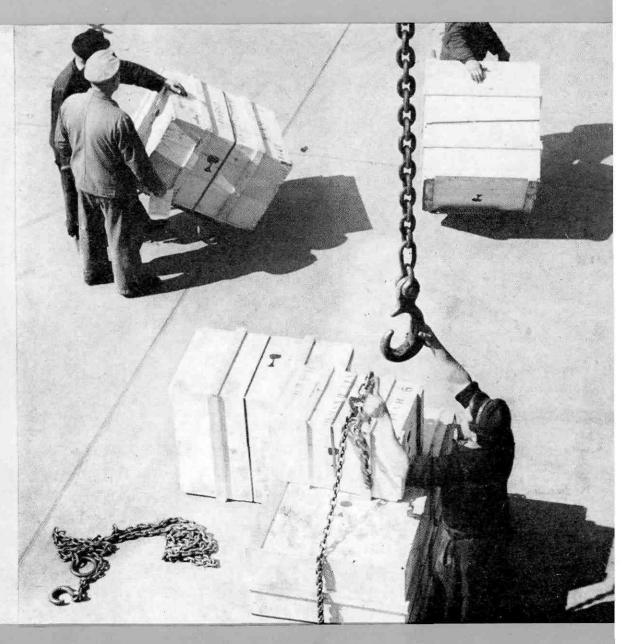
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# International Transport Workers' Journal

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### Comment

### A common mistake, but still a mistake

OUR ATTENTION WAS RECENTLY CAUGHT by a leader which appeared in the October issue of 'Les cadres des chemins de fer' published by our new French railwaymen's affiliate, the Railway Technical & Supervisory Staff's Federation. In it, the General Secretary of the Federation commented on a statement made by an official of another railwaymen's organization that affiliation with the ITF 'ipso facto entails membership of the International Confederation of Free Trade Unions of socialist tendency . . . and which has an unfortunate habit of dealing with problems on a political basis and to interfere, as a trade union organization, in matters which do not properly concern it.'

This statement was dealt with very efficiently by our contemporary, and our only reason for further comment on it is that it contains at least two major errors of fact which sometimes seem to achieve a little too general currency. Firstly, we should make it quite clear once again that the ITF is not part of the ICFTU and that consequently ITF affiliation does not imply membership of the ICFTU. The ITF is completely independent - as regards both policy and freedom of action. It has its own specialized job to do and it does not take orders or receive directives from anyone but its membership. We and the ICFTU are, however, both part of the democratic trade union movement and it is therefore only natural that we should collaborate in certain spheres - e.g. regional activities - in order to avoid senseless overlapping of international trade union effort. Equally sensibly there is an agreement whereby all the ITSS recognize the authority of the ICFTU to take decisions on general matters affecting our movement which do not fall within the province of any one international organization.

The statement also implies that since the the ICFTU is alleged to be socialist and political (which, of course, is not even true), the ITF must also be. Here again, we would point out that the ITF has within its ranks unions of widely differing political adherences, as well as many which are completely non-political. The ITF in fact has no politics, unless one counts its steadfast opposition to any form of totalitarianism and that is something for which we certainly feel no need to apologize. Nor are we going to apologize for any action which we have found it necessary to take in the socalled 'political' field to defend the interests of our members. That after all is our job and one which we intend to continue doing.

# The flight engineer's place in the airline

by a flight engineer member of the British Merchant Navy and Airline Officers' Association



BEFORE GIVING REASONS WHY A FLIGHT ENGINEER SHOULD BE CARRIED, I wish to make it clear that the person referred to is a professional Flight Engineer and not a maintenance engineer as carried on such aircraft as the Viking for ground duties.

An important factor to be considered is that in the past, some Flight Engineers have tended to concentrate on the operating aspect of their job. We are at present suffering from this period and although it has been overcome, it is still used as an argument to the detriment of Flight Engineers. It is human nature to blame a group of people when really the faults lie with a small minority.

The decision to carry a Flight Engineer or a third pilot has been and is being inThe decision to carry a flight engineer or a third pilot has been and still is being influenced by politics, writes the author of this article – himself a flight engineer with unrivalled experience of jet flying (Photograph by courtesy of KLM)

fluenced by politics. The world-wide redundancy which is facing a small number of pilots in the future is responsible for the Bogota resolution which IFALPA passed: the fail-safe argument they put as the reason for this resolution does not stand up to even a cursory examination. To use the Flight Engineer's job on the aircraft as a brief stepping stone onto the right hand seat would mean that the airline would not be getting value from the individual concerned; his main object would be to get out of the job as soon as possible and get on with his career as a pilot. The only way to attain and keep a high standard as a pilot, is to fly an aeroplane. A parallel can be found in crews with a pilot doing fulltime navigating duties. My observations are based on conversations with these pilots As pilots, they want to fly aeroplanes; the more time they spend navigating, the less proficient they become as pilots. The aircraft handling during statutory check of some third pilots is worse than when they converted on to the aircraft. This is due simply to lack of practice.

In brief, to be a really good airline pilot requires specialization. The adage 'Jack of all trades and master of none' must not apply in aviation. If an airline is content to accept low standards of proficiency from its crew members and is satisfied when they only fulfil the statutory check requirements, sooner or later it will lose money or aeroplanes – maybe both.

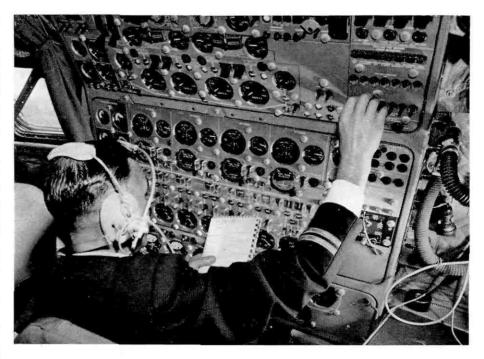
A modern jet costing in the region of two million pounds has to be operated with regard to the money invested in it. It has a very large revenue-earning potential! Industry in general would, I am sure, be staggered at the suggestion that a piece of engineering equipment which is as complex, troublesome and 'spoilt' as a modern airliner, has only one specialist engineer checking on its functioning. The suggestion that it

could be looked after as a part-time job would be considered ludicrous.

The value of the aircraft and the high rate of utilization which must be obtained to make it pay, precludes any person but a highly-trained specialist, fully conversant with the maintenance casualty trends, the modification standards and the company engineering policy affecting that particular type of aircraft, being carried.

To pursue the subject of maintenance and casualty trends further, examples I have in mind are - the company wish to extend the overhaul life of engines. This will need complete co-operation from the crew and excellent liaison between the Flight Engineer and maintenance staff. (The EAI operation on BOAC's Seven Seas is an example of this). The engines have to be 'nursed' more and any overall differences on instrument readings which would interest the maintenance staff, carefully noted. The example given applies equally to many other components, such as generators, fuel booster pumps etc., which all respond to care and attention. The engineering costs of a modern airline are extremely high and great efforts will be made in the future to keep these as low as possible. This can only be done by good liaison between the Flight Engineers and the maintenance department, with the Flight Engineer fully understanding his aeroplane, and the problems facing his fellow engineers on the maintenance side.

Contrary to the views I have heard some uninformed people express, the jet engine responds to careful handling with greater financial rewards than a piston engine. The basic reason is, of course, that it costs more. At an initial cost of £70,000, the cost of replacement parts at overhaul is in proportion. Many jet engines receive 'scars' if the starting technique is not carried out correctly. Careful handling to keep the temperature gradients as flat as possible, correct de-icing drills, and many other handling points will pay handsome dividends in longer life between overhaul, and help to reduce overhaul costs. An electronic engine performance and analyser is going to be fitted on the big jets; to obtain



full value from this expensive piece of equipment, 'the story' it tells needs to be correctly understood. My experience on piston engine analysers is that, to be really proficient in their use, constant practice is required. The equipment is as good as the man using it.

High utilization depends on good service-ability; delays due to weather are decreasing. Aircraft are so utilized that the adverse effect of a late departure is felt on more than one service. For instance, the stopover during the day in New York after an Atlantic flight, which gave the maintenance staff time to cure snags has now disappeared. A good example of the modern trend is PAA's 707 Paris-New York aircraft being hired to another airline an hour-and-a-half after scheduled ETA (estimated time of arrival) to fly a Miami return service.

The adverse effect of weather on regularity has and is being countered by complex instrument systems, including ILs (Instrument Landing System) and glide slope coupling, and in the near future, automatic landing. For pilots to trust and use this equipment, it has to be kept up to a very

high degree of serviceability. Simply changing 'the black box' does not work every time. Many of the snags can only be reproduced in flight, and intelligent use of the electrical test equipment such as Aviometers, to check just what electrical signals are being sent around the system, and noting them in the Technical Log, can be of the greatest value to the maintenance staff. Changing components to try and cure the defect by a process of elimination is a very costly way to do the job. Once a piece of equipment is moved from the aircraft, even if it is found afterwards that it is not the cause of the trouble, it has to go through 'the system'. Overseas stations present shipping, customs and replacement problems. The more accurate the troubleshooting, and the more facts which are given to the ground staff, the less time and money are wasted.

As an example of what sometimes happens, I once saw written in the Radio Section of a Technical Log, the statement, without any amplification or detail, that 'The BF2 was U/s'. The maintenance staff just didn't know where to start, the pilot

who wrote it in was quite a distance away in the Met. Office and a late departure resulted. Great savings on delays have been made by Flight Engineers having messages sent on R/T furnishing the ground staff with particulars of defects, enabling them to get the correct tools and spare parts to start work as soon as the aircraft is on chocks. To avoid cluttering the wavelengths, these messages have to be brief and accurate.

I feel that many problems still exist and much remains to be done in cutting down the number of technical delays. Having a stand-by aircraft presents complications of configurations, and large jets will need quite a long time to change the load and catering stores, added to which there is the loss of utilization of the stand-by aircraft to be considered.

The Flight Engineer, by close liaison with the maintenance staff, and by being kept up to the highest standards with progressive educational schemes, can do much to reduce delays. The present trends in airline maintenance highlight the importance of the previous statements.

With correct supervision and planning, the Flight Engineer can be a very fully utilized member of the crew. The unfortunate trend in the past to crowd the pilot's panels with systems, instruments and controls, has in most cases stopped; to quote from an article in 'The Aeroplane' of the 19 December 1958:— 'Future aircraft might well be designed with simplified rational displays and controls for two pilots so that they can concentrate on their essential piloting and navigational work; and ancillary controls and purely quantitative instruments arranged elsewhere for the attention of a third crew member'.

One of the Flight Engineer's duties would be to operate this panel. In addition, he would be of great value for off-route diversions and charter flights into stations where no maintenance staff for his particular type of aircraft are based; a third and most important development is the granting of power to qualified Flight Engineers to certify the aircraft as safe for flight, after major component changes. This recent development has great possibilities and should be extremely valuable to the airlines in the future.

Many minor defects are being cured in flight, and future aircraft tend to be similar to the Comet with equipment bays easily accessible in flight; defects which do not affect the safety of the aircraft are being 'carried' until the aircraft has a major check at base. To do this properly, a high standard of systems knowledge is required and close teamwork between the Flight Engineers when they hand over at slip stations.

In conclusion, we are entering a period where the borderline between profit and loss is going to be very narrow, where the aeroplanes have a smaller 'forgiveness factor' for incorrect operation. The standards of operation from all pilots and Flight Engineers will have to be higher and a reduction in these standards will be dangerous. The operation of the aeroplane must be as good as the design and engineering built into it. We are getting advanced equipment; let's use it as its full potential.

#### A fishing plan for Ireland

THE NATIONAL FISH INDUSTRY DEVELOPMENT ASSOCIATION OF THE REPUBLIC OF IRELAND has a plan to put 10,000 Irish fishermen to work by 1970 and another 30,000 to work on shore along the Irish coast. The plan envisages a tenfold improvement in the industry within ten years. At present the Republic's fishing industry is worth £1 million a year and produces some 25,000 tons of fish.

Steps proposed to achieve this increase are: recruitment and training of young entrants to the industry; a yearly increase in the fleet by 100 bigger and 150 smaller boats; harbour improvements; market study; and a fish processing plant programme.

On recruitment, the plan envisages entry of 1,000 men a year with educational authorities providing classes on fishing. Furthermore, training would be provided for one hundred skippers a year – as many crewmen as possible being encouraged to become skippers.

Fishing boat needs are assessed at 1,500 small motor-boats of less than thirty ft. length and about 1,000 larger boats from thirty ft. to sixty-five ft. in length. The purchase of second-hand boats to bring the fleet up to the required total is also envisaged, 'every encouragement being given to fishermen who desire to purchase secondhand vessels'. The plan further comes out strongly in favour of investment in smaller boats which are regarded as more likely to yield a greater return of fish in terms of weight. Introduction of middle-water trawlers is not envisaged until towards the end of the ten-year programme when a reserve of skilled fishermen has been built up.

On the subject of markets, the plan points to the possibility of tapping the British and Continental markets for the disposal of top quality fish and a wide variety of fish products carefully designed to meet specific requirements, whilst in the matter of fish processing the plan envisages a private investment trust or a State organization to act as a liaison between potential investors in processing plants and the industry.

The authors of the plan have not attempted to cost the programme except to point out that the financing of the fleet and the provision of the research and educational facilities could be covered by the sums the State normally invests in agriculture in one year.

### Guiding ships by cable

SWEDISH EXPERTS ARE TESTING a device which, they claim, will revolutionize navigation in overcrowded waters when visibility is bad. It consists of an electric cable on the bed of a canal or harbour. An oscillograph on board the ship then records the ship's position in relation to the cable. The method has been tested with a trawler on a two-mile stretch of water at the entrance to Limhamn near Malmö, southern Sweden, with results that are stated to be good. The inventors claim that the system enables vessels to enter and leave port in conditions of safety even when visibility is nil, and that it costs very little to use.

# Making it easier for the driver



THE BUS DRIVER IS ALWAYS ON THE ALERT. The lives of his passengers are in his hands and he has to be ready at any moment to take rapid, decisive actions, actions that carry an enormous responsibility. The strain of this perpetual state of attention coupled with the fact that he cannot take a break just when he likes, is without doubt one of the things that makes a bus driver's life so difficult. For this reason it is so important that everything possible should be done to reduce to a minimum all other physical and mental demands made on him in the performance of his duties. An important start could be made by considering what improvements could be made in the design and lay-out of the driver's cabin.

First of all, the seat. Many people who have to stand in their jobs might envy the driver because he sits down for his. If his seat is not correctly designed, however, it is possible that the person who sits all day long is worse off than those who have to stand. A special committee concerned with the design of driving cabins has recently recommended that the height and position of the driver's seat should be adjustable so as to provide sufficient leg room and the correct distance from the wheel for drivers of varying stature. The back of the seat should also be adjustable to give the maximum comfort and support. The area of the actual seat should be at least 400 millimeters from back to front and 450 millimeters in width. Upholstery should not be slippery and the material should allow a sufficient circulation of air. There are already on the market a number of suitable seats which are adjustable, well sprung and upholstered and fitted with hydraulic shock-absorbers. Progressive firms are already fitting these seats in all their vehicles.

Turning to steering equipment, the first thing required here is obviously the installation in motor buses of some kind of safe steering wheel similar to those, which have been recently developed for private passenger vehicles (tulip wheel, one-spoke wheel, etc.). The professional driver is entitled to at least the same protection as the private motorist against this source of possible injury. Advances in steering technique have made it as easy to-day to steer a bus with a rear engine and a length of up to ten metres as it is to steer a small private car.

It will be readily appreciated from this shot of traffic in London's Oxford Street, that the driver of a bus in a big city doesn't exactly have an easy time. The more reason for reducing to a minimum the physical and mental demands made on him in the cab (Photograph by courtesy LTE)

In these cases there is no need for auxiliary steering. In the case of larger vehicles and those with a fore-axle load of over four tons, auxiliary steering equipment is still required but it should be so arranged as not to interfere with the driver's 'feel' of the road. This means that the power of the auxiliary equipment should be graduated so that a small turn of the steering wheel would not be unduly reinforced. Unless this is borne in mind, the driver is likely to lose his acquired skill in turning in to the side of the road to pick up passengers.

All modern buses have three sets of brakes: the foot-brake (a combined air and hydraulic brake operating on all wheels), the hand-brake (usually a mechanical brake working on the rear wheels or the cardan shaft), and the exhaust brake which makes use of the compression work of the engine. The manner in which these brakes are operated differs widely from vehicle to vehicle. As far as the foot-brake goes, this ought to be operated by a foot plate rather than a pedal because the better position of the foot allows a finer touch on the plate than on the pedal. The exhaust brake on buses ought not to be operated by a knob placed on the floor of the cab, but ought to be combined with the foot-plate so as to guarantee frequent use. This would not only spare the other brakes but would also reduce the risk of accidents in transferring the foot from one brake to the other. It would also increase braking speed.

In hilly districts the driver has to use the hand-brake frequently. It ought therefore to be easy to handle. The brace-brake taken over from goods lorries is hard to handle and is not really suitable. A reinforced version of the kind of brake normally found in private cars would be more suitable. It should then be fitted in the most accessible position.

Anybody who has noticed the complicated series of gear changes a bus driver

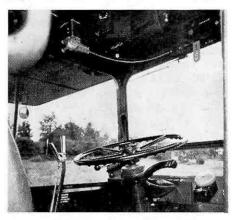
makes when turning a corner in dense city traffic must often wonder why more accidents do not happen. The demands made here on the driver's skill, judgment and accuracy are enormous. It is estimated that in a single day's driving in dense city traffic, a bus driver changes gear between two and five thousand tines. The physical effort alone is considerable. For this reason the usual gear lever ought, notwithstanding its simplicity and reliability, to be replaced by something simpler. Auxiliary pre-selector gear systems are already a considerable advance, but the ideal solution would be to free the driver altogether from this work by installing completely automatic gear-change systems. Devices of this kind are already on the market and although at the moment they are expensive, it must be borne in mind that the more their use spreads the cheaper they will become to produce.

The safety of the driver and his passengers depends to a large extent on the signal-ling equipment he has at his disposal for indicating his intention to turn. At the moment the winking light indicator would seem to be one of the best solutions. The controls for giving this signal ought, how-



The health and well-being of transport workers like this Rome bus driver must be reckoned among the most valuable assets the industry has possesses (Photograph by Conquiste del Laroro)

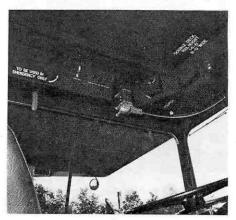
Two close-ups of the driver's cab in a Routemaster, the most modern bus operated by the London Transport Executive. Note the excellent all-round vision and the use of pre-selector gears. The Routemaster bus is also equipped with a plate type foot-brake (LTE photographs)



ever, to be simplified so as to reduce the driver's distraction to a minimum. One improvement would be to have the signal switch off automatically after the vehicle has made the indicated turn.

There is also great scope for improvement in the simplification and standardization of dash-board layout. Until some sort of uniform standard has become general, the following stipulations ought to be rigorously observed: firstly, all important instruments and warning lights ought to lie within the driver's normal field of vision and should not be obstructed by the wheel in the case of small drivers; the glass covering the instruments should be curved and so placed as to eliminate distorting reflections; all dials and switches should be indelibly marked with letters or easily understood symbols; it should always be possible to see whether switches are 'off' or 'on'; the instrument panel should be indirectly illuminated with a clear regular but not glaring light - only warning lights showing sudden loss of oil or air pressure should be brilliant, and in any case, these dangers would be better indicated by means of an acoustic signal. In general, instruments ought to be reduced to a minimum.

Proper heating and ventilation are also necessary for the driver's well-being and presence of mind. It ought to be possible for the driver to regulate a supply of cool



or warm air above shoulder level, according to his needs and, above all, without causing a draught. The same applies to ventilation and heating at foot level. An electrically-operated adjustable fan ventilator ought also to be provided to give extra circulation of air when driving at low speeds in city traffic in the summer heat. When the heating and ventilation systems are combined, it is essential that the air supplied should not be too hot or too dry. Above all, it should not smell.

Modern curved wind-screens can give a field of unimpeded vision of as much as 180 degrees. The virtual extinction of the front engine on modern buses has given the driver a much better view of small objects immediately in the path of the bus. Modern wind screen wipers are also extremely effective for maintaining good vision during rain. These ought to be complemented by some form of installation enabling the glass to be cleaned when it is not raining. When the weather is very cold outside, the glass ought to be heated evenly on the inside by the passage of warm air currents over the entire surface of the glass, to prevent it frosting over, although this must be done in such a way that the cooled air is not then deflected on to the driver's face. Good vision ought to be ensured in other directions by the installation of good suitably mounted mirrors and by extending the



Special problems have now arisen as the result of the increasingly extensive use of one-manoperated buses in many European countries Everything possible needs to be done to simplify the job of collecting money and giving change

glass in the side front windows as far down near the floor as possible. It is also necessary to provide some permanent fixture to prevent the driver's vision being impaired at night by reflections on the wind screen from the lighted passenger compartment behind him.

The introduction of one-man operated vehicles where the driver also performs the functions of the conductor presents several problems which it would be as well to try and solve at the start. The whole procedure of collecting money, giving change etc. ought to be as simple as possible, for undue delay here is likely to put a further strain on the driver in keeping to his schedule. The equipment necessary for the driver to act as conductor should not be allowed to restrict the space required for him to carry out comfortably his function as driver. Above all, this equipment should be firmly secured, so that it does not constitute a further hazard when the vehicle is in motion. One small source of distraction to the driver - it could be easily overlooked, and it would be very simple to put right would be the rattling of loose money in the

Excessive noise is, of course, a problem which has recently been recognized as a

major source of impairment of the worker's health. Quite a small degree of noise can, if it is present all the time, have a cumulative adverse effect on a man's nervous state and ultimately on his physical health. It is therefore always desirable to reduce noise to the minimum. In the driving cab quite appreciable effects in this direction can already be attained by lining the cab with available suitable material. This is a problem which deserves further detailed research and it ought to be possible to make much greater improvements in the future.

The health and comfort of transport workers must be reckoned among the most valuable assets the industry possesses. It is therefore in the interests of all concerned that everything should be done to reduce the physical and mental burdens placed on a bus-driver in the performance of his extremely responsible duties. This is a task calling for the utmost cooperation between trade unions legislators, omnibus operators, manufacturers and the various technical research institutes.

(based on article by Dr. Karl Lippacher in OeTV-Presse)



MISS THERESE ASSER replies to the many tributes paid during the dinner given in her honour by the ITF Management Committee to mark the occasion of her retirement after thirty-six years' service with the Secretariat (see ITF Press Report no. 21 of 15 October). Also seen in our picture are (from left to right): Bro. Greene (General Secretary, National Union of Railwaymen); Omer Becu; Bro. Frank Cousins (ITF President); Bro. W. J. P. Webber (General Secretary, Transport Salaried Staffs' Association); Mrs Webber; and Bro. A. Hallworth (General Secretary, Associated Society of Locomotive Engineers and Firemen). Just out of the picture on Bro. Greene's right is another member of the Management Committee of the ITF, Captain Douglas S. Tennant, General Secretary of the Merchant Navy & Airline Officers' Association.

We know that all who have encountered the spirit of loyalty and helpfulness that Thérése has always shown to everybody she has met with in her work at the ITF will join us in wishing her a very long and happy retirement in her new home in Amsterdam

# A piece of anti-labour legislation

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US LABOUR UNIONS ARE UNANIMOUS IN THEIR CONDEMNATION of the latest piece of legislation enacted by the US Congress. The 16,000-word Act, about which it is practically impossible to find one good word spoken by union leaders or rank-and-file, is the so-called 'labor reform' Act which purports to 'clean up' the house of labour but which, according to George Meany, President of the AFL-CIO, 'contains not just reform but punitive measures against decent unions.' It was passed by both houses of the US Congress early in September by overwhelming majorities after an earlier Bill, the Landrum-Griffin Bill, had come under heavy fire from the unions and their sympathizers. The new Act, essentially the L-G Bill with a few clarifying amendments, *inter alia* tightens curbs against secondary boycotts, seriously restricts union picketing, and empowers State judges to consider small labour disputes, formerly a 'no man's land' in that the National Labor Relations Board had refused to handle such labour disputes.

This new piece of labour legislation, described as 'making the most sweeping changes in labor's rights since the Taft-Hartley Act of 1947', results from the tremendous pressure built up by business groups for a 'stronger' measure after union and liberal elements had sought a law that would strike at labor-management corruption. The us trade union attitude to corruption, not only among certain union elements but also in big business and the frequent 'unholy alliance' which has often resulted from this, has been well publicised. Above all, force has been lent to labor's

condemnation of shady practices in unionmanagement relations by the AFL-CIO's creation of a special committee to go into such instances when they occur; by that body's act in expelling unions – very few in number – which have failed to respond to an appeal to 'clean house' and by the safeguards it insists on before considering the question of re-admission.

In spite of its willingness to go along with genuine reform measures aiming at curbing the harmful practices of anti-social elements in both labour and management fields, and possibly for the very reason that United States workers are now subject to a new trade union law which is described as 'making the most sweeping changes in labour's rights since the Taft-Hartley Act of 1947'. The law, the result of tremendous pressure from big business, is bitterly opposed by the US labour movement

it insisted that the undesirable practices were not limited solely to the labour side, Us labour now finds that its worst fears are realized – namely that it is facing an all-out attack. Such at least is the inference which may be drawn from President Meany's recent Labor Day message when he spoke of 'a cold war deliberately invoked against the trade union movement by the big business interests of the nation.'

Unlike the Taft-Hartley Act, most sections of the new labour regulation act will apply to railwaymen and their unions as well as to all others. The new law does contain a provision, however, to the effect that 'it shall not be construed to supersede or impair or otherwise affect the provisions of the Railway Labor Act'. The latter is the act which chiefly rules the bargaining rights and obligations of us railwaymen. In this sense, therefore, the us railwaymen's unions will find themselves further affected by restrictive labour legislation. It is not surprising therefore that railroad unions have gone on record with some outspoken comments. Referring to the passage of the Bill



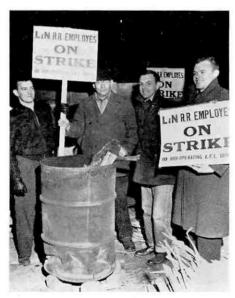
Joseph Curran, President of the ITF-affiliated United States National Maritime Union, stated emphatically that such laws 'have nothing to do with reform.. their aim is to weaken unions.. laws that weaken labor weaken the country'



through Congress and the 'hardening process' that went on during the various stages, 'Labor', the official organ of the ITF-affiliated Us railwaymen's unions said: '... liberals in both houses of Congress had sought from the first to achieve a reform bill that would act against the crooks in management-labor relations without harming honest unionism.

The Landrum-Griffin Bill (i.e. the Bill which with minor amendments was given legislative effect – Ed.) goes far beyond that, however. Liberals charged it would sap labor's strength in many ways, especially hurting small unions and hampering the organization of low-paid non-union workers. (The Bill) would lead to the liquidation of the legitimate rights of unionism in this country.

This picture of us trade union reaction to the new labour legislation would not be



United States railwaymen will be still further affected by restrictive labour legislation as a result of the passing of the new act. Rail union leaders have been outspoken in their comments on the law

complete without a quotation from other sections of the movement. John L. Lewis veteran miners' leader states: 'nothing much has been proved except that there are some crooks in organized labour as there are in every other element of American society. But the sensation-seeking press and radio and television networks have had a field day. The result has been that a lot of Democrats otherwise friendly to organized labor are afraid not to support anti-labor legislation.'

Joseph Curran, President of the ITF-affiliated NMU writing just before the final passage of the Act, said: 'These Bills have nothing to do with reform. Their aim is to weaken unions – to weaken their ability to make gains for their members, enforce their contracts and organize the unorganized.' And later: 'The people who seek to hamstring the labor movement and destroy its effectiveness would also destroy the stability that the great trade union movement has brought to our country. . . . Laws that weaken labor weaken the country.' Strong words; but also very true words.

# West Germany's public expenditure on air terminals

AT THE MOMENT GERMANY has plans for two intercontinental airports with facilities for jet aircraft. One of these will be the Rhein-Ruhr Airport catering for Cologne and Bonn. The other, at Frankfurt on Main, will have two runways, one of them 3,600 metres and the other 3,000 metres long, one of which is expected to be completed by the end of this year. The total cost of airport extensions at Frankfurt, including the installation of all necessary maintenance and servicing facilities is estimated at 77 million рм (approximately £7 million) for the five years, 1956–1961. Work on the Cologne-Bonn airport is expected to cost 7 million DM less. This airport will only have one runway of 3,800 metres suitable for jet aircraft.

According to a recent statement by the German Federal Minister of Communications, the Federal Government owns about a quarter of the capital of the Frankfurt Airport, the government's share amounting to 6.25 million DM. The government also owns almost half the capital of Berlin-Tempelhof Airport, and has a third share in the airports at Stuttgart, Hannover, and Nüremberg. Although the Federal Government has no share in the airports at Bremen, Munich, Hamburg, all airports are in receipt of substantial public grants. Between 1955 and 1959 these amounted to approximately 159 million DM, of which no less than seventy three million DM has been advanced this year.

### Are pilots too old at sixty?

A PROPOSAL BY THE US FEDERAL AVIATION AGENCY (FAA) that all us pilots should retire at the age of sixty and pilots over fifty-five years of age should be precluded from taking type ratings on jet aircraft irrespective of their competency and physical fitness has called forth protest among us pilots. Pointing out that there have been only two fatal airliner accidents since 1946 involving pilots of fifty or older, they maintain that health and proficiency, not age, should determine whether a pilot can fly safely. The question of flight safety in relation to pilot age is, they assert, already fully covered by existing regulations which require pilots to undergo six-monthly medical examinations and type checks on all aircraft which they are qualified to fly professionally as captains.

Whilst recognizing that the FAA proposals are largely based on a desire to provide protection against 'in-flight incapacitation', us pilots point out that neither the imposition of an age limit nor the periodic medical checks constitute a guarantee that this will not occur. For the present, FAA regulations do not require co-pilots to hold type ratings on the aircraft they fly although notice has been given of a proposed rule on this subject.

The effect of excluding pilots of fifty-five from taking jet type-ratings and adopting an age limit for pilots of sixty would be pretty severe. It could well mean that Us pilots will insist on increased salaries during the

Richard Freund, President, Austrian Railwaymen's Union; Chairman of the ITF Railwaymen's Section



### Profile of the month

shorter working life of pilots approaching the age of fifty-five. Reassurance, if not comfort, may be drawn from statistics produced by the pilots in this connection which show that no pilot over the age of fifty-five has ever died in flight, and of twenty-seven accidents since 1949 involving pilots of all ages, none has been attributed to the age or physical breakdown of the pilot. The question therefore as to whether pilots should be required to retire at the age of sixty appears not to involve safety but to be purely an industrial relations problem.

## Fivefold increase in productivity by American railway workshop staff

THE ITF-AFFILIATED RAILWAY LABOR EXECUTIVES' ASSOCIATION recently issued its findings in the second of a series of studies it is undertaking to determine the exact rise in productivity of the various categories of American railway workers during the last 17 years. The present study, which, like the first, is based on official statistics published by the us Interstate Commerce Commission, is concerned with the 174,000 railwaymen employed in the repair and maintenace of rolling stock. It shows that since 1922, these workers, who make up nearly one-sixth of the total labour force employed on the us railways, have increased the number of revenue traffic units per hour worked by 510 per cent. (Revenue traffic units have long been an accepted standard measure used to gauge railwaymen's productivity. They are based on a combination of revenue tonmiles and revenue passenger miles). Other tables, in terms of ton-miles, car miles and locomotive miles per employee and per hour worked all confirm this startling rise in productivity, which may also be seen from the fact that in 1922 over half a million workers put in a total of 1.4 billion man hours in order to haul 410 billion revenue traffic units, whereas in 1958 when 188 billion more revenue traffic units were hauled, the average number of workers was only 174,000 and they put in only 431 million man-hours to enable the railways to haul this greater load.

Watching richard freund, newly-elected Chairman of the itf Railwaymen's Section, as he presided over the International Railwaymen's Conference recently held in Salzburg, one could not help wondering whether his thoughts were going back to an earlier trade union meeting which he attended in the same city. That was sixteen years before – when Austria was still under Nazi domination and caught up in Hitler's war against the democracies. The meeting – like all trade union activity at that time – was, of course, an illegal one. At the end of it, Freund was arrested by the Gestapo, brought before a Nazi court on a charge of high treason and, after narrowly escaping the death penalty, was sentenced to a long term of imprisonment. The sentence, served in the camps at Neurisshof and Lundenburg, was however, brought to a much earlier end than his judges had anticipated by the Allied victory.

This was by no means the first time that Richard Freund had found himself in gaol as a result of his trade union work. In fact, this was almost his first experience after being elected leader of the Austrian Railwaymen's Union in 1934. Just one week later the Austrian Fascists launched their final attack on the working class and Austria entered on a period of darkness and violence that was to last for another eleven years and could only be ended by a world war.

His first experience of prison did nothing to cow Freund's spirit. If anything, it had exactly the opposite effect. Hardly had be been released than he began the job of organizing underground resistance among the railwaymen. He was particularly active, for example, in maintaining contact with exiled freedom fighters across the border in democratic Czechoslovakia, who were producing illegal railwaymen's newspapers like 'Der Prellbock' (The Buffer) and 'Das Signal' (The Signal).

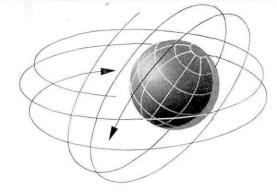
During this period, too, Freund succeeded in keeping alive the links between the Austrian railwaymen and the ITF. One of his strongest memories of this time is of his attendance at the 1935 Copenhagen Congress when, together with Andreas Thaler, he handed over his union's ITF flag to Edo Fimmen for safe keeping until better times returned. In 1946, Freund – once more at the head of his union – was able to take back the flag to an Austria which, although still occupied, had thrown off the Fascist yoke once and for all, and was well on

the way towards regaining its full independence. That flag – symbolic of so much that has happened in the last twenty-five years – had a place of honour on the platform at Salzburg.

Since his return to Austria – sick and exhausted as a result of Nazi ill–treatment – Richard Freund's association with the ITF has been closer than ever before. As was to be expected, he has played a particularly active role in the Railwaymen's Section and earlier this year, at a Sectional Committee meeting, Omer Becu presented him with the Gold Badge of the ITF in recognition of his great services to railwaymen.

Freund sometimes refers to the years before the First World War when, as a fledgeling journeyman, he travelled through Italy, Switzerland, France and Germany. It is doubtful whether at that time he ever thought that one day he would preside over meetings of railwaymen from those four countries and many others. But there can be no doubt about the good sense of the railwaymen of the ITF in electing Richard Freund as successor to the late Guillaume Devaux. Railwaymen are hard-headed, practical people and they know a good thing when they see it. They know that in Richard Freund they have a man who is completely identified with the railwaymen's trade union movement, a man who has demonstrated his devotion and loyalty to trade unionism in the clearest possible way. That is why they, in their turn, have shown their trust and confidence in him.

# Round the World of Labour





The Netherlands inland waterway fleet

THE DEVELOPMENT OF THE NETHER-LANDS INLAND WATERWAY FLEET is revealing two opposing tendencies. Although between 1 January 1957 and 1 January 1959 the number of units grew from 15,708 to 18,136 (carrying capacity rising in the same period from 4,327,000 t. to 4,866,000 t.) the increase was due solely to a growth in the number of larger vessels put into service. As regards the smaller craft, an opposing tendency has been evidenced. In this case the number of vessels has decreased. The relatively greatest increase has been among craft from 600 t. to 1,000 t. The decrease has been noticeable in craft under 200 t.

Another tendency which has become more marked of late is the increasing tempo of the changeover to self-propulsion. The number of self-propelled craft has increased whilst craft of other types have decreased in numbers.

In spite of recent additions to the fleet, nearly one half of the inland waterway cargo-carrying fleet dates from 1900 to 1919. The picture is somewhat different, however, in the case of tanker barges: of a fleet of 889 as of 1 January 1959, 791 had been built since 1920. In the case of this type of craft, we also find a reversal of the

The present development of the Netherlands inland waterways fleet shows a definite trend towards the operation of larger units. Biggest single increase is in craft between 600 and 1,000 tons

tendency for the number of smaller as well as of towed craft to decrease.

About one half of the Netherlands inland waterway fleet is engaged in international traffic. The ratio of general transport to transport for own account is 3:1. This is exactly the opposite of the position in road transport.

Mechanization of the Dutch inland waterway fleet has progressed to such a degree that one can speak of a fundamental change in the character of the fleet. At the beginning of 1950, about 40% of the fleet was self-propelled. At the beginning of this year it was 63%. In terms of carrying capacity the increase was from 20% to 46%.

#### Swedish seamen's radio programmes

RADIO SWEDEN some years ago started a short-wave service intended for Swedish seamen at sea. Owing to technical difficulties and the obvious complication of finding transmitting times suitable to all parts of the world this service has had a somewhat limited success in distant waters. But it has given rise to a very interesting new development.

The people at Radio Sweden responsible for the service have found that instead of transmitting programmes through the air, the best way to get them to the distant ships was to taperecord them and send the tapes to the vessels. At the present time tapes are regularly sent to seventy-five ships twice a month. Each tape contains a two-hour programme, drawn partly from the regular programmes of Radio Sweden - such as sports events, popular features, talks, music, and also information both on happenings in Sweden and for instance safety questions at sea. The distribution is handled by the Swedish Merchant Navy Welfare Board, who are also participating in the editorial work. This new programme is expected to spread quickly to many more Swedish ships.

### Mechanization on Canadian railways

TRAFFIC HANDLED BY THE CANA-DIAN NATIONAL RAILWAYS was roughly the same in 1958 as in 1955, employment however was down by 6,344 (5.3%). The drop is attributed to 'new methods' (mechanization, dieselization and other labour-saving methods and devices including the use of automation in the accounting system.) More recently the drop in employment has been more marked. Thus from 30 January 1958 to 30 January 1959 it went down by 6.8 %. As there was a decrease in traffic over this period, however, it is difficult to say to what extent the reduction in work force was due solely to new methods on the railways.

Asked to make a statement on the loss of jobs through automation and technological changes, W. J. Smith, National President of the ITF-affiliated Canadian Brotherhood of Railway, Transport and General Workers, had this to say:

\*Automation, as distinct from new methods, is pretty well restricted to members of our union who are clerical employees. With regard to these, we have been able to work out mutually satisfactory arrangements with CNR management who have protected the people already on the payroll. The number of jobs has decreased, but natural attrition such as deaths, retirements, etc., has taken care of the decrease.

'Since the beginning of 1957, we have had on our staff a former member of the CNR's revenue accounting office in Montreal. His sole task has been to keep abreast of railway plans for automating their office procedures. He has worked closely with the railway management to ensure that the welfare of those presently employed is protected. We have thus been aware of the changes planned by the railway well in advance of their introduction. Memorandums of agreement have been signed to cover new situations, including retention of employees, as they developed. These memorandums have also covered the establishing of rates for new positions.

'As far as mechanical advances which now pose a threat to our membership are concerned, the most immediate one is the replacement of dining cars with dinette cars, which require fewer people. Automated office procedures will require continuing adjustments, probably on the pattern already established.

'I feel most strongly that the railways must be encouraged to modernize their equipment and to streamline their operating procedures, but I do not believe that the whole cost should be borne by the workers which new methods and new machines replace. I think that improvements should be so scheduled that they displace as few people as possible, and that those replaced should receive compensation in the form of severance pay.

'There is need for the closest possible liaison between management and union representatives if the processes of changes are to cause the least possible difficulty. The basic need is to humanize our approach to technological advance. This is obviously true if we apply it to our society as a whole and, therefore, it must be true of individual enterprises. We have recently established a Research Department with vastly increased resources, which we hope will enable us to keep a closer watch on the changing patterns of railway employment. From these studies, policies will be developed which we will endeavour to get management to accept.'

### 'Admit one'

RECENTLY SPAIN was admitted to the Organization for European Economic Cooperation (OEEC) – on condition she devalued the peseta. Immediate result of the devaluation was a drastic raise in prices. The Spanish worker is now paying for the honour.

The first jump was in rail fares. They went up by forty per cent. An increase in the cost of food and other services followed.

Spanish workers, who were getting little enough for their money before, are now getting even less. The basic daily wage of an unskilled worker is still about thirty-eight pesetas. A foreman mason gets fifty pesetas, whilst a miner gets seventy pesetas for an

eight-hour day shift and seventy-five pesetas for a night shift.

Translated into terms of purchasing power these wages are almost incredibly low. At his present rate of pay – and little, if any, hope of improvement – an unskilled worker has to work an entire day before he has earned enough money to buy a pound of beef. If he just sticks to fish he finds that he can get a pound of tunny for just a little more than twenty pesetas – which is near enough what he gets for working half a day.

Miners are among the 'highest' paid workers in Spain. What this means in terms of everyday living, however, is very little bearing in mind that, before he has earned enough to pay for a dozen eggs an Asturian miner has to work nearly three hours. When he has completed his day shift, the Spanish miner has earned enough to buy himself and his family half a dozen eggs, a loaf of bread, two lbs of potatoes, a pound of beef and a litre of cheap wine. That does not leave much over for 'luxuries', although at that rate of pay it would appear that living itself is a luxury the Spanish worker can ill afford. Assuming he does indulge in luxuries, such as smoking, he finds that a packet of tobacco weighing four ounces costs thirty-eight pesetas - which is exactly a day's wage for an unskilled worker.

Speaking of the effects of the recent devaluation of the peseta, the Spanish Minister for Trade said: 'Any rise in the cost of living will only be minimal.' We can imagine the camel-driver saying something similar when he put on the last straw that broke the camel's back.

### Railwaymen older than average

THE UNITED STATES RAILWAY RETIREMENT BOARD reports that about thirty-six per cent of all American railwaymen are over fifty, whilst only twenty-five per cent of workers in other industries are over that age. Among the reasons for this situation, the Board says, are the decline in the number of men employed on the railways and the strong seniority system in the industry, which means that the older men are laid off last, as well as the fact that men

taking up a career on the railways tend to be older than entrants into other industries.

### Road traffic accidents in Europe

ROAD TRAFFIC ACCIDENTS IN EUROPE claimed 43,200 deaths last year in sixteen countries. This however was a decrease on 1957 which, with over 44,000 people killed on the roads, was a peak year for death on the road. Since 1953, deaths from road accidents had been showing a steady increase, the 1957 figure being twenty per cent higher than that of 1953. Increase in the number of vehicles over the same period was much higher – forty-four per cent more cars and eighty per cent more motor cycles.

The number of those injured in road accidents in fifteen countries in 1957 was 1,214,597. In 1956 the total was 1,179,714.

West Germany had the highest number of road deaths in 1958 – 11,615. France came next with 8,122, followed by Italy with 7,145 and Great Britain with 5,970.

# US maritime unions urge research into navigational aids

THE US UNITED MARITIME UNIONS' LEGISLATIVE COMMITTEE has urged the Maritime Administration to undertake a study of the use of infra-red ray detection devices to prevent collisions at sea.

Infra-red rays are invisible to the human eye. By the use of infra-red sensitive film, for instance, photographs can be taken in the dark. The union request followed the announcement of a \$300,000 government grant for research and development of new navigational aids and safety devices for merchant ships.

The committee proposed ten items for special study, including the development of a radar data computor which would enable ships to avoid situations in which collisions could occur. They also urged research into possible improvements in controlling ships when docking, and in the launching of lifeboats. Other items listed include the use of rubber life-rafts and the purification of oil-contaminated ballast water.

# Austria and the Soviet Danube



AFTER FIFTEEN YEARS of almost complete stagnation, there are signs of a revival of international traffic on the lower reaches of the Danube. Austria is faced with the decision whether or not to accept Russia's invitation to join the Belgrade Danube Commission and the USSR has commissioned the Austrian Danube Shipping Company to transport 220,000 tons of coke and iron ore from Linz in Upper Austria to Ismail, the former Rumanian and now Russian port on the estuary of the Danube. The motives underlying the Russians' actions – they may well be the first steps towards nothing less than a complete switch in Soviet economic policy in South East Europe – are, as always, inscrutable, but there are good reasons for believing that they are connected with Soviet dissatisfaction with Austria's growing economic dependence on West Germany.

The Danube has always been Austria's lifeline. Like Czechoslovakia and Hungary, Austria is a land-locked state at the mercy of its immediate neighbours for its means of communication with the outside world. In spite of the great political and cultural differences that have often divided them, the countries along the banks of the Danube have always tacitly accepted international traffic on the river and seldom done anything to obstruct it. From being the most obvious and natural means of communication between them, traffic along the Danube has with the passage of time become an integral part of the economic life of the countries of South East Europe. The economies of the individual nations have developed so as to complement one another and the unrestricted flow of traffic along the Danube came to be as indispensable for the efficient functioning of the predominantly agrarian economies of the countries in the East as it was for the industries of Austria and Bohemia.

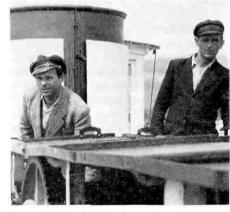
After the disintegration of the Austro-Hungarian Empire, the waters of the Dannube were policed during the inter-war years by the members of the International Danube Commission, which included Britain, France and Italy as well as the riparian

2 open gas

The Russians, it would seem, are anxious to revive traffic on the lower reaches of the Danube. In the meantime, traffic on the Upper Danube – between Austria and neighbouring West Germany – has recovered amazingly since the war ended

states - the great bulk of the international traffic being handled by the First Austrian Danube Shipping Company. At the end of the second world war most of the company's vessels remaining afloat were concentrated between Linz and Regensburg and thus came under American, instead of Soviet, control. The Russians claimed these vessels as former German property and when the Americans refused to surrender them the Russians announced that they would seize any which ventured beyong the inter-zonal frontier at Linz. In view of the serious shortage of river tonnage in the sector under their control, the Russians were, however, finally obliged to retreat from this attitude and in 1952, after a period in which licences were granted to individual vessels to operate as far down as Vienna, the Soviet authorities suddenly opened the Danube to all the company's vessels.

In 1948 the Russians and their satellites set up a new Danube Commission which gave the Soviet Union virtual control of the river all the way down from Linz to the



Formerly the Danube was a river of freedom. Three-quarters of all those who get their living from the river, originate from Hungary, Rumania and Bulgaria. For them the river was a means of escape from feudal tyranny and exploitation

Black Sea, The new Danube Commission, which is confined to the riparian states, came into being at the time of the quarrel between Tito and the Cominform and it is, perhaps, a hopeful sign for the future resumption of traffic on the river that even when this quarrel was at its most bitter, neither side interfered with the Danubian traffic of its opponent and Jugoslav vessels were able to pass unhindered through Hungary, Czechoslovakia and the Soviet zone of Austria right up to Regensburg in Bavaria.

In spite of the fact that the Russians have placed no obstacles in the way, and have even gone out of their way to invite Austria to send its ships downstream, there has up to now been almost complete stagnation of traffic on the lower Danube. The reasons for this are, however, ultimately of the Russians' own making. Austrian cooperation is essential for a revival of traffic, for Austria has all the necessary ships. On the other hand, Austria cannot participate in this trade for the simple reason that there is no trade. Russian policy in the Danube States has been to develop the economies of

the different states to fulfil the demands which the Soviet system makes on them. The result is that the agrarian countries no longer have any surplus of grain to export to the West and no foreign earnings for the purchase of imports. A striking contrast to this stagnation on the lower Danube is afhas increased by over six hundred per cent, and foreign traffic, now almost entirely confined to trade with Western Germany, has increased by about seventy per cent. The swing from East to West is reflected in the rise of Linz in the West which has now taken Vienna's former place as the leading Danube port.

Economically, at least, then, Austria now faces Westwards. There can be little doubt. however, that the present state of affairs is a highly artificial one which ignores Austria's natural and traditional economic links with the lower Danube countries.

The artificiality of the situation is underlined by the fact that Austria's present trade

forded by the dramatic recovery in the freight trade on the Austrian stretch of the river since the signing of the peace treaty in 1954. In the last five years internal traffic

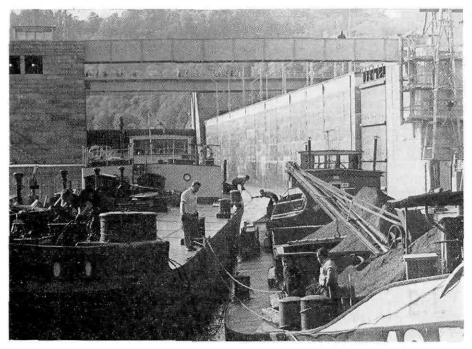
The upper course of the Danube is through mountainous country which presents many serious obstacles to navigation. The upper reaches of the river do not afford the same natural and easy means of communication which the placid lower Danube offers to the land-locked states of Communistdominated South-East Europe along its banks

with the West depends to a great extent on a highly ingenious system of preferential freight charges devised by Federal Germany to attract Austrian export and import traffic away from all ports which are non-German. These preferences vary inversely with the distance from the German frontier so that goods coming from Graz on Austria's frontier with Jugoslavia are carried within Germany at lower mileage rates than goods from Upper Austria. It is thus often cheaper for Austrian merchants to send their goods the long way round by way of Hamburg than via Trieste which is only a quarter of the distance away.

It seems then that one consequence of Russian policy in South East Europe, the isolation of the lower Danube States and their economic integration into the Soviet Empire, has been to make Austria increasingly reliant on West Germany for its means of communication with the outside world.

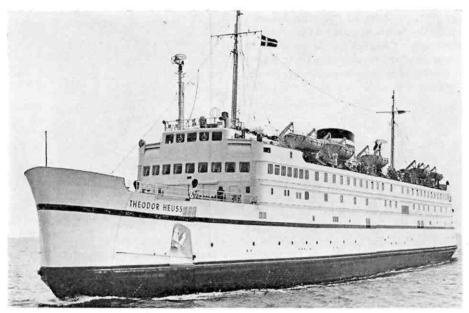
If it is this which lies behind the sudden Russian concern for a revival of the traditional trade between Austria and the lower

(Continued on the next page) To-day's traffic is mostly in iron ore and coal. Before the war there was a lively exchange of manufactured goods from the West and raw commodities from the East, chiefly Hungarian grain and Rumanian oil. Nowadays the East has no surplus to export but the Russians are starting a lively traffic in oil which is being sent backwards and forwards to no other evident purpose



# The railwayman goes to sea

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The is almost two years since the German Federal railways' train ferry 'Theodor Heuss', joined the 'Deutschland' on the international rail ferry operating between the German Baltic port of Grossenbrode and the Danish port of Gedser. Since 1952 the volume of traffic carried between Scandinavia and the European mainland has increased almost tenfold. In 1958 no less than 1,220,000 passengers were carried by the two German railway ferries and the two Danish vessels serving the route, the 'Kong Frederik IX' and the 'Danmark'.

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Danube states, it is evident that they have a major problem on their hands. This trade has been brought to a standstill not so much because the Austrians were formally denied access to these waters but because there have been no goods to trade in. These goods cannot be conjured into existence overnight.

Or can they? It seems that there is one way in which traffic can be increased when there is only a limited amount of merchandize available. The same goods can be carried twice over, as has been proved by the grotesque way in which the question of Austria's reparation payments was settled last year. Instead of a simple reduction in Austria's deliveries of oil to the Soviet Union, it was arranged that Austria should go on delivering the same amount, one

million tons every year, but should in return receive 500,000 tons of Russian oil. It was also arranged that this traffic should be carried on the Danube instead of by rail as previously.

Fantastic arrangements like this are quite clearly a denial of economic reality and in themselves are hardly likely to lead to any serious permanent revival of traffic on the lower Danube. But the question is not really how long and to what extent the Russians are prepared to carry on this wasteful, sham commerce, but what their reasons are for embarking on it. It could be an elaborate and expensive way of undermining Austria's present economic ties with the West. On the other hand, it is just possible that they are prepared to accept a certain liberalization of trade between East and West in order to inject new life into the sagging economies of the lower Danube states.

The 'Theodor Heuss', the latest addition to the rail ferry service between the German Baltic port of Grossenbrode and the Danish port of Gedser. It was first put into service on 14 November 1957

The 'Theodor Heuss', powered by dieselelectric engines, cannot be described as a particularly elegant vessel. It stands too high out of the water, and in fact has been called 'a floating box'. But then it is a 'special purposes' vessel, carrying a train, cabin passengers and motor vehicles. This to a great extent has determined its construction, allied with the factor that it has to fit into its prescribed berth with permanent structures for the run-on of the train, of the motor vehicles and for the foot passengers. These restricting factors apply to all the ferries operating this service. The comparatively large surface above water which the 'Theodor Heuss' presents to a beam wind consequently makes manoeuvering a somewhat difficult operation, especially in a high wind.

In all other respects, however, this latest addition to the ferry service has a number of advantages over its sister ships. Owing to the greater use of steel plating and fire-resisting materials, the 'Theodor Heuss' presents a considerably less fire risk than earlier types; there are passenger lifts between the decks as part of the Federal Railways' service to customers; whilst special attention has been paid to the problem of reducing the noise from the ship's engines.

A further interesting aspect of the operation of the 'Theodor Heuss', providing a proof that the German Federal Railways has been at pains to provide the most upto-date service made possible by recent technological progress, is the method by means of which car accommodation is reserved on the vessel. This is done by an 'electronic brain' installed in Frankfurt am Main and connected by teleprinter to twelve out-stations. From these points the 'brain' can be contacted by teleprinter. It makes a note of the bookings and gives information such as the amount of accomodation still available or, if the sailing required is full, when the next will be leaving.



The 'Theodor Heuss', which carries 1,500 passengers as well as eighty motor vehicles and thirteen railway carriages, employs a marine staff of 240. Of these, seventy are in the deck department, thirty in the engineroom, fifteen perform duties connected with passport and customs control, whilst 125 men and women are in the catering department. These work in three daily eighthour shifts corresponding to the three return journeys made.

Staff employed on the marine craft operated by the German Federal Railways have their interests watched over by the ITFaffiliated German Union of Railwaymen (GdED). Membership of the union is high by any standard, thus ninety-six per cent of the staff of the ferry-boat 'Theodor Heuss' belong to the GdED. Organizationally, they belong to the industrial group catering for locomotive and watercraft personnel. For years now this group has done much to advance the interests of this comparatively small section of employees of the Federal Railways whose work is in so many respects different from that of the everyday railwayman.

Inevitably, there is a tendency to claim

parity with regular seamen as regards the marine personnel of the German Federal Railways. Nevertheless, it is not always easy to establish exact parallels. The GdED considers it is on the right lines when it demands and to a large degree has won management acceptance of certain basic principles regarding the rates of pay and promotion channels of the Federal Railways' marine staff. In this connection it has become clear that it is not always practicable to base claims solely on a close comparison with what could be established as equivalent ranks in the railway service proper.

Fortunately, no individual group among the Federal Railways marine personnel has sought to obtain advantages for itself to the possible detriment of other groups. What is aimed at is establishing a relationship between the grade of able seaman on the marine craft, as well as his counterpart in the engine-room and those grades in the railway service proper who fall into the so-called 'intermediate grade' (mittlere Laufbahn). This guarantees a certain range of salary and promotion opportunities. Other grades among the marine personnel of the German Federal Railways can then be re-

The three types of traffic leave the 'Theodor Heuss', each going on its separate way. This train ferry carries 1,500 passengers as well as eighty motor vehicles and thirteen railway carriages

lated to this 'standard'. Inevitably there are a number of adjustments and compromises to be made if the marine personnel are to be satisfactorily fitted into a staff scheme of salaries and promotion channels applicable to personnel performing duties frequently of a totally different kind and in a form of transportation which in many respects permits no close comparison with marine transport.

A case in point is the situation of a large number of the personnel on the railways' marine craft who are ranked as 'salaried staff'. They include navigating and radio officers, ships engineers and electrical engineers. In terms of salary, job security, promotion opportunities and pensions, however, the salaried staff do not enjoy the same advantages as those on the establishment (permanent staff) — the so-called 'Beamten'. Practically all the salaried staff

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It takes high qualifications and many years of experience before one is put in charge of such a vessel as the 'Theodor Heuss'. The total crew of this train-ferry numbers 240 and they are all employees of the German Federal Railways

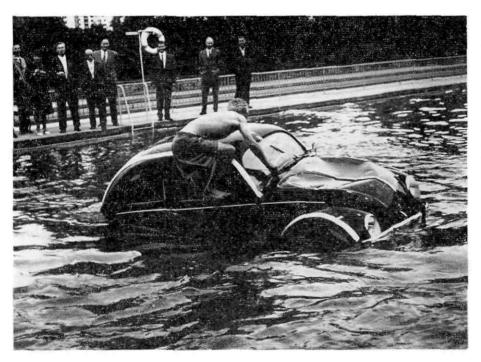


The interests of the German Federal Railways marine craft employees are watched over by the ITF-affiliated German Union of Railwaymen (GdED). Union membership is high, 96 per cent of the crew of the 'Theodor Heuss' for example



A radio officer on the train-ferry service. He is graded as a member of the salaried staff but he can become 'established' in due course. This would confer a number of advantages to which his technical qualifications would seem to entitle him

# The driver need not have drowned



The ACCOMPANYING PHOTOS, taken by a member of the ITF-affiliated Swiss Transport Workers' Union (VHTL), vividly illustrate a method of escape from death by drowning with which a driver may be faced should he be plunged with his vehicle into any deep water. Observing the method described for self-rescue under such circumstances might well reduce the number of cases of death from drowning which like the following (taken from the Swiss press) appear only too frequently in our newspapers.

Sixty-year old Hans Bossard of Zurich met his death by drowning whilst backing his lorry to the edge of a quarry preparatory to discharging his load of rubble. Suddenly the ground gave way beneath him, plunging his lorry into the water with which the quarry was filled to a depth of some sixty to eighty ft. The driver was unable to release himself from the driving cabin. His body was later recovered by two frogmen attached to the local police.

Could the death of this driver in such

(Continued from page 239)

on the deep-sea ferries of the German Federal Railways, however, intend to remain in the service and in due course become 'established'. After three years' service in a salaried grade, such staff can apply to be established. Even when established, however, they still do not get the DM 40 a month allowance paid to those with technical qualifications whose establishment grading is considered as being on a different basis.

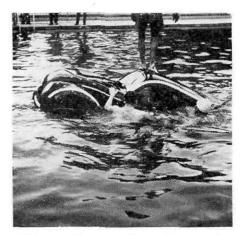
There are also a number of other anomalies, e.g. in promotion opportunities for certain grades, which the German Railwaymen's Union would like to see abolished. For the moment it is proceeding on the assumption that there is no lack of goodwill on the part of the railway administration towards the aspirations of its marine staff, the difficulties being rather of a technical nature connected with the rules and regulations governing entry into Federal government service and consequent grading and promotion.

Escaping through the open window of a vehicle which has been plunged into deep water. This can be done in some circumstances, but only before the water has risen above the level of the window

tragic circumstances have been avoided if he had behaved differently?

Some time ago the Society for the Prevention of Death by Drowning gave a practical demonstration of the best way to behave in such a situation. Although the demonstration, staged in the pool of the open-air baths at Letzi, Zurich, was carried out with a private car and not a lorry, the driver of a heavy road vehicle could have got some useful pointers to the best way to extricate himself.

In an accident of this kind, the first and most important thing to remember is not to lose one's nerve but to do the right thing from the start. In most accidents of the type here being considered, the driver has little time, if any, to make his escape in time from the driving cabin. If he is given some time to act, he is usually too busy endeavouring to bring his vehicle under control. In the event of a precipitous drop or rapid uncontrolled descent into deep water, it is vital to ensure that he does not get knocked out. He can best avoid this by hanging onto the steering wheel, If the vehicle concerned



It is impossible to open the window even when exerting all one's strength owing to the pressure of the water. The only thing to do is to remain quite calm and wait for total submersion

# **Crew comfort on trawlers**



THE COMFORT OF A TRAWLER'S CREW is directly related to the vessel's acceleration. Almost fifty per cent of the passengers in a large liner were seasick, but with twelve times greater acceleration in four German trawlers there was not a single case of seasickness in comparable weather.

Capt in Walter Moeckel, naval architect, of Hamburg, discovered this when he experimented with four trawlers to find out their behaviour during fishing trips. He describes his tests in a paper presented during the Second World Fishing Boat Congress in Rome.

The four trawlers measured between 167 and 182 ft. and the investigations covered shaft horse power, ship's speed, warp pull angle and period of roll and pitch, apparent angle of roll, vertical acceleration, and wind speed.

#### Partly used

It was found that the power requirement when trawling was almost the same for the four vessels, and that the shape scarcely affected the power requirement, resistance of the ship being about four per cent of that of the gear, says Captain Moeckel. Power was only partly utilised when trawling in good weather. In bad weather the torque (twisting movement) and not the power reserve is the limit, due to the loss in r.p.m.

'Increase in power is not the only way to increase speed; refined hull design and, above all, increase in length are important factors,' comments Capt. Moeckel.

Trawlers require much additional power to maintain steaming speed in bad weather, but loss of speed is less with a low block coefficient. Trawlers steaming at the same ratio of wavelength to shiplength as cargo ships lose comparatively more speed.

'Crews complain not only about short periods of roll but also about long periods which convey a feeling of insecurity,' he goes on, pointing out that trawlers shipping much water soon have to stop fishing.

During the experiments the point of minimum motion was deduced from measurements of acceleration. Vertical acceleration was greater forward than aft, and was lowest in a following sea.

All the four trawlers used – two steam and two motor – were built during the last seven years. The voyages of the two motor trawlers took them to the area of the Lofoten Islands. One of the steam trawlers was on a herring trip, while the other went to

Iceland. The bottom of the ship on a herring trip had been painted just before the start of the voyage; the other three were bottom painted about ten months before the trip.

#### Six instruments

The periods of roll and pitch were found by using a stop watch, and each day the GM (metacentric height) was calculated with a fair degree of accuracy from the period of roll. Six instruments indicating the apparent angle of roll were distributed between the keel and the top of the wheelhouse. Seven accelerometers were distributed over the whole length of the ship. The wind speed was determined by an anemometer calibrated in a wind tunnel.

Capt. Moeckel found that the torque coefficient when trawling was about seventy-five to ninety-three per cent greater than when sailing, 'Differences in the hull form do not affect the power requirement at the low trawling speed. At 3.5 knots, the resistance of a motor trawler of the type of one of the ships tested can be assumed to be about 0.5 ton – approximately four per cent of the measured resistance of the gear, about 12.5 tons.'

No further major gains of speed are to be expected from increase of power. The same tendency is apparent from trial measurements on most trawlers, and comments Capt. Moeckel, increased speed can only be attained by still better hull designs and increased length.

#### Lost speed

Loss of speed is considerably more for trawlers in the seaway than for big cargo ships, and the influence of wind and waves is notably less when trawling. The maintenance of eighty-five r.p.m. of one of the motor trawlers at wind force eight, when sailing, requires an increase in power of thirty-six per cent, and when trawling, an increase of only four per cent. The loss of speed amounts to about twenty per cent when sailing but only about four per cent when trawling.

The torque reserve of modern trawlers (Continued on page 247)

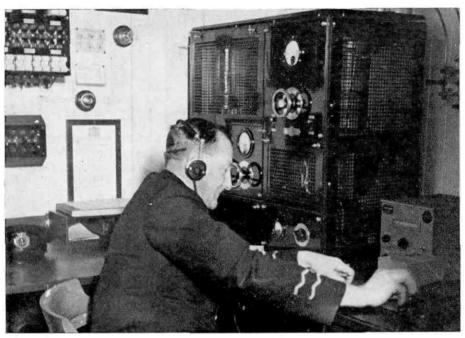
### (Continued from page 240)

is a heavy lorry, he has no chance of getting out by opening the window until this is completely submerged. And this is where the driver has to avoid any panic action, for he will not be able to open the door until the driving cabin is filled with water. There is thus no other course for the driver than to sit as calmly as he can and wait for the moment when the water has completely invaded his cabin. At the last moment he should try to fill his lungs with the remaining air and then, at the moment of complete submersion, force the door open with one thrust. This would have to be fairly powerful as the resistance of the water has to be overcome. With the door once open, and his lungs full of air, the driver, even if not an experienced swimmer, should have no great difficulty in rising to the surface.



The moment just before complete submersion. This is the time above all when the driver must keep his nerve. By taking a last – but not final – deep breath and awaiting complete submersion he has every chance of forcing his way out of the cabin and rising to the surface safe and sound

# Have ship's radio officers too much to do?



THE QUESTION AS TO WHETHER SHIP'S RADIO OFFICERS are overburdened with 'supplementary paper work' is one which has arisen on more than one occasion. Something of the difficulties associated with this calling may be gleaned from an article by R. N. Heidrich which appeared in a recent issue of 'oetv Presse', the official organ of the ITF-affiliated German Union of Transport and Public Service Workers.

There is a full-time radio officer on board every German merchant vessel of any size who is responsible for running the ship's radio. Most of these ships are engaged in the ocean-going trade which determines the nature of the radio officer's duties. International rules on the safety of life at sea lay down that a watch of not less than eight hours a day must be kept on the frequencies used for emergency and sos calls. In addition an ordinary eight-hour radio watch has to be worked, the times of which are adapted to the safety watch times as far as possible. Watches are usually worked in the form of two hours on duty and two hours off alternately over the period between eight a.m. and ten p.m. At night and during the radio officer's time off the watch on the safety frequencies is taken over by an apparatus which ensures that an alarm bell rings to bring the radio officer to the set if an emergency call is being transmitted from

any source.

The radio officer as part of the international radio station network works on Greenwich mean time. Shipboard time however is adjusted to accord with the ship's movements - one hour for every fifteen degrees longitude. Thus, although his hours of watch are largely regulated according to the shipboard time, differences in time do occur, resulting not infrequently in meals being missed unless an understanding steward sees to it that he is warned in time or arranges for a meal 'outside

A radio officer's duties include listening in at frequent intervals to the various coastal radio stations, taking down numerous weather reports transmitted by weather stations, listening in to navigational warning signals over the air. These transmissions however, do not always occur at a time when the radio officer is actually on duty, Besides his normal radio duties the ship's radio officer is often burdened with 'paper work' and other tasks not directly concerned with wireless telegraphy. The question arises as to whether there is not too much of this extra work

which means that he has to put in extra time.

Similarly, he is frequently required to transmit or receive telegrams outside normal watch hours.

Apart from all this work, which by the nature of things must often be performed at times when the radio officer is not actually on watch, there are numerous other tasks he is called upon to perform having to do with the ship's administration. These are in effect the duties which would be performed by a ship's purser - if one were carried! As it is, on the majority of German vessels, they are performed by the radio officer. They can, and do, amount to an enormous amount of additional work. Thus before entry into port, a mass of paper work has to be done drawing up lists for the customs, recording pay advances to members of the crew, preparing clearance papers for passengers, etc., etc.

This additional labour also includes the thankless task of making up the monthly pay accounts. This means a host of calculations, especially as regards the working out of overtime payments, and two or three nights with hardly any sleep to get them ready and up to date by the end of each month when they are wanted. And it is no good starting on them too soon as they have to include all the latest details. All these calculations usually have to be made without any mechanical aids such as

a computing machine. All these tasks are in effect additional

to the radio officer's real job which is to attend to his wireless duties. In practice, however, he finds that something like seventy per cent to eighty per cent of his time is taken up with these extraneous jobs. For all this he gets an allowance of DM 100

(and quite often less) a month. In English money this works out at about £9 or \$26.

(Continued on page 247)

# **News from the Regions**



# ICFTU urges investments in underdeveloped countries

AT MEETINGS WITH TOP OFFICIALS OF THE INTERNATIONAL MONETARY FUND, the International Bank of Reconstruction and Development, and the United Nations' Special Fund, representatives of the International Confederation of Free Trade Unions pressed the urgent claim of rapid investment in the economically underdeveloped countries. Alfred Braunthal, Head of the Economic and Social Department of the ICFTU, Bill Kemsley, ICFTU representative in New York, and J. Seidman, of the AFL-CIO first met Eugene Black, President of the International Bank of Reconstruction and Development, in September. The ICFTU delegation welcomed the planned establishment of the International Development Association, which hopes to raise an initial capital of 1,000 million dollars over a period of five years by members' contributions proportional to those which they pay to the International Bank. This plan is to be submitted to the Bank's general meeting now in session in Washington. Black reported that several governments had already expressed themselves favourably disposed towards this proposal. The ICFTU delegation said that the free trade union movement had always supported such a plan which would allow the financing of basic development projects to go ahead on much more favourable terms than the Bank can offer.

The ICFTU delegation also met Per Jacobsson, Director of the International Monetary Fund and discussed with him the Fund's policy, in particular its effects on wages in Argentina and Spain where assistance was given. The delegation pointed to the social unrest caused in Argentina by methods connected with financial reorganisation and put forward the views of the ICFTU on this issue. As for Spain, the delegation pointed out that under the Franco regime there had been a shift in income distribution at the expense of the workers. Jacobsson assured the delegation that it was not the Fund's policy to lay the burden of reorganisation on the shoulder of the workers but that the whole economy should have to bear the sacrifices required for a short period for the sake of economic progress. The ICFTU delegation stressed the importance of strengthening the democratically-minded forces in Spain rather than allowing them to be weakened.

In New York, Braunthal and Kemsley called on Paul G. Hoffman, Managing Director of the United Nations' Special Fund which is mainly concerned with assistance such as surveys, research and training - to underdeveloped countries as preparatory measures for investments. Hoffman said that the first year's contributions were too low to enable the Fund to accept all applications which might be worthy of consideration but announced that on 8 October there would be a Pledging Conference for the second year of operation and that there were good prospects for higher contributions for 1960. The ICFTU delegation assured Hoffman of the Confederation's interest in the work of the UN Special Fund and pledged its co-operation and assistance on the question of training.

### Mombasa to become oil port

EAST AFRICAN RAILWAYS AND HARBOURS have just started work on a survey for the dredging of the harbours and approaches at Mombasa which will be used by tankers going to the £15 million oil refinery to be built at nearby Changamwe.

Altogether, EAR & H expect to spend about £1 million on a new oil jetty and the dredging work. When the whole scheme is finished tankers of up to 70,000 deadweight tons will be accommodated there.

# Asian trade unionists study European worker's education

TRADE UNIONISTS FROM TWELVE ASIAN COUNTRIES have been meeting under ILO auspices in Denmark, and later Geneva, to study modern techniques in workers' education. Through a programme of visits and lectures the participants in the study course were also given an opportunity of obtaining first-hand experience of

social conditions in Denmark and the rôle of the Danish trade unions in the community.

### A three-year plan for Asian unions

MAIN TOPIC OF DISCUSSION AT THE RECENT EXECUTIVE BOARD MEETING of the ICFTU Asian Regional Organization (ARO), held at Nuwara Eliya, Ceylon, was the problem of strengthening existing Asian trade unions and organizing the as yet unorganized.

The Board felt that organizational work would be more effective if unity could be achieved among the democratic labour movements in countries where there is more than one national trade union centre. To improve the structure of national centres, the Board considered that immediate efforts should be made to set up national industrial unions. A three-year plan, designed to achieve these objectives, was drawn up. It lays down organizational priorities in various Asian countries, methods of work, liaison between the ARO and the different national centres, exchanges of information, research projects on wage policies, and the extension of trade union education.

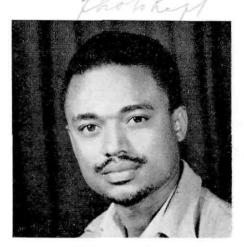
# Studying at the African labour college

AMONG THE MANY AFRICAN LABOUR LEADERS attending or due to attend the African Labour College at Kampala is Anthony O. Okanlawon, deputy general secretary of the Nigerian Union of Railwaymen. He became deputy general secretary of the union this year after ten years as district secretary.

The African Labour College is run under the auspices of the ICFTU, being paid for by contributions from member unions throughout the free world. Object of the College is to give African union leaders several months of intensive training in democratic trade unionism.

The ICFTU also runs a Trade Union College in Calcutta, India.

Trade union response to ICFTU appeals to support the College and assist in sending



Brother John Reich, General Secretary of the Uganda Eastern Province Road Transport Workers' Union is one of many whose attendance at the ICFTU Labour College at Kampala will help to advance the labour movement in Africa

students to it has been generous. Money donated is used in the award of scholarships to those who it is thought are most likely to benefit from training of this kind. Inevitably the choice is very difficult to make, due consideration having to be given to all the factors.

The accompanying photo shows Brother John Reich whose attendance at the College was made possible by a generous contribution from the ITF-affiliated Canadian Brotherhood of Railway, Transport and General Workers. Brother Reich, who is general secretary of the Uganda Eastern Province Road Transport Workers' Union and also a member of the Road Transport Wages Council, has spent many busy years organizing labour in his part of the world. He has been attending the second course at the Labour College which started last June. The first course was attended by some forty students from twelve African countries. Although the College is at present housed in temporary premises, it is hoped that the permanent building will soon be completed.

### A merchant navy advisory board for India

THE GOVERNMENT OF INDIA has decided to set up a merchant navy training board to advise it on all matters concerning the training of merchant navy officers, ratings and other personnel. One of the functions of the board will be to make recommendations from time to time on measures which will ensure the build-up of an adequate merchant navy personnel.

One of the members of the board is likely to be J. D. Randeri, General Secretary of the ITF-affiliated Maritime Union of India.

Existing training facilities for Indian merchant navy personnel are the training ship 'Dufferin' (for navigating officers), two nautical engineering colleges and four establishments for the training of ratings – in Calcutta, Vishakapatnam, Bombay and Navalakhi.

### Malayan railwaymen want pensionable status

MALAYAN RAILWAYMEN ARE PRESSING FOR PENSIONABLE STATUS. Some 2,500 employees of the Malayan Railways are involved, represented by the National Union of Railwaymen, the Locomotive Enginemen's Union, the Railway Junior Officers' Union and the Signalmen's Union. The Railway Senior Officers' Association is also associated with the railwaymen's demands which in essence are that they are entitled to the same privileges as government servants inasmuch as the railways are also government-owned.

The Malayan Railways management, on the other hand, contends that the monthly-rated personnel concerned are employed under the Employees' Provident Fund Scheme. It is therefore prepared to look into this scheme with a view to its improvement. At present Malayan railway staff pay six per cent of their salaries into the fund whilst the railway management contributes nine per cent. This it has stated it is prepared to increase to twelve per cent provided the employees raised their contribution to eight per cent.

Latest news of the claim is that the railwaymen have turned the offer down, insisting on a pension scheme benefiting all railway employees in lieu of the present contributory provident fund.

### Indian railwaymen want changes in rules

CHANGES IN THEIR SERVICE CON-DUCT RULES were called for by Indian railwaymen during the course of the annual convention of the ITF-affiliated All-India Railwaymen's Federation in New Delhi recently. They also urged decasualization of contract labour. The stringent and arbitrary character of the service rules governing Indian railwaymen have frequently been made the target of criticism. For the present however, the railway administration has given no very clear evidence of a desire to modify them to an extent which would appear justified. Certain of the rules in particular may be regarded as a direct infringement of personal liberty having little, if any, bearing on the employee's efficiency as a railway worker.

#### African trade unionists in Austria

WITH THEIR ATTENDANCE AT THE CONGRESS of the Austrian Federation of Labour (0egB) from 21 to 26 September, a party of African trade unionists has recently completed a six-week tour of Austria organized by the 0egB as part of an international free trade union solidarity action. The party, which consisted of fourteen men prominent in the African trade union movement, was given an opportunity of studying the Austrian trade union movement, various social and cultural institu-



Symbolic of the ties of friendship uniting African and European trade unionists. Trade union ideals admit of no distinction between black and white – we are all together in the fight for social justice and the end of economic exploitation

Members of the African trade union party, headed by Bro. Lawrence Katilungu, President of the Trade Union Federation of Northern Rhodesia, which recently visited Austria for six weeks at the invitation of the Austrian Federation of Labour



tions as well as a number of industrial enterprises.

Members of the African trade union party from such widely separated African countries as Tanganyika, Nigeria, Nyasaland, Sierra Leone, Kenya, Gambia, Ghana, were able not only to see for themselves the manner in which trade unionism functions in an industrialized country of the western world, but were also given a useful insight into the everyday problems and the historical development of trade unionism in a country which, by reason of its size and the struggles it has waged to win and preserve its freedom, has much in common with those African territories from which the members of the party came. Above all, this gesture of international trade union solidarity could but serve the cause of free trade unionism and all it stands for.

With emergent trade unionism in Africa fighting industrial and political exploitation (with the confusing interplay of interests, ideals and forces which this inevitably entails), there can be little doubt that this opportunity of learning at first hand something of the conditions in a western country such as Austria has done much towards strengthening existing ties between European and African trade unions. The historical perspective acquired by the African guests of the Austrian Federation of Labour will certainly be of no little value to them in tackling the numerous problems which await them on their return to their homeland. Not least among these is the struggle for equality of treatment irrespective of colour or race and for an end to co-Ionial suppression and economic exploitation. In this, African trade unionism knows that it has the support of trade unionists throughout the free world.

#### Akira Iwai re-elected

AKIRA IWAI of the ITF-affiliated Japanese National Railway Workers' Union (Kokutetsu) has been re-elected to the office of Secretary-General of the General Council of Trade Unions of Japan (SOHYO). This body is the country's largest national centre with a membership of some 3,500,000.

### New Japanese pension scheme

JAPAN'S NEW OFFICIAL PENSION SCHEME is starting its life this November. Under it all old people over the age of seventy will receive an old-age pension of 12,000 YEN (about £12) per year. This is the first time in Japan that all old people have been entitled to a pension – previous schemes covered only certain categories of employed persons. The new scheme also provides general disability pensions to all persons over the age of twenty who are incapable of earning their own livelihood. These pensions work out at about £18 per year. The third type of pension un-

der the scheme is that payable to widows with children still at school. A widow with one such child will receive the equivalent of £12 per year, with an additional £2 for every other child. The expense of the scheme will be borne entirely by the Japaneses Government but the pensions will not be paid to people already in receipt of pensions from other sources or to those with an annual income of more than £125, to the wife of a man who pays income tax or to aged or disabled members of families where the main breadwinner earns more than £500 a year.

### Malayan Government to protect fishermen

THE MALAYAN MINISTRY OF AGRICULTURE AND FISHERIES has decided to take measures to protect Malayan fishermen against attack whilst fishing within territorial waters in the Straits of Malacca. The decision was made following a series of incidents recently when fishing vessels were attacked by gunboats of unidentified nationality. The Malayan fishing boats suffered serious losses.

AN ITF PUBLICATION

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# The big memory machines

Jehoto's Jecheroused to NITO, 2 copies sout. 18.1.60.



BUSINESS RESEARCH EXPERTS using fantastically complicated 'electronic brains' are completing a six-month study of us National Maritime Union (NMU – an ITF-affiliate) operations. A major part of the project involves an analysis of more than a million and a half voyages made by fifty-thousand seamen over a period of three years.

When the study is completed, union officials and administrators of the NMU welfare plans will be able to reach decisions on the basis of complete and accurate information hitherto not available to them.

By feeding into the 'electronic brain' the sailing time of every unlicensed seaman on every voyage of all NMU contract ships during 1956–57–58, IBM (International Business Machines) technicians fashioned a massive jigsaw picture out of billions of bits of data.

This file covering a million and a half voyages was transfered from IBM punch cards to magnetic tapes used by the processing machines or digital computers. The data is stored on the tape in the form of magnetic spots, which have a function similar to the punched holes in punch cards.

One spool of tape contains the data on 18,000 voyages sailed by NMU seamen. The information includes each man's name, social security number, Z number, union book number and sailing time.

In one second a modern data processing machine can 'read' instructions and go through several thousand steps (addition, subtraction, division etc.) print the results, and during the process correct errors in the data.

With this store of information at their finger tips, union administrators will be enabled to improve efficiency and service to the members.

For example: Handling a seaman's vacation claim now requires more than twenty time and labour consuming steps by Vacation Plan clerks. The Plan must check, for instance, to see that nobody attempts to collect Union Employment Security payments while on vacation. Additional complications are presented by factors such as special payroll taxes imposed by some states.

Just one IBM employee is on watch at the control centre while a battery of magnetic tape units silently and efficiently carries out the work of an army of file clerks, accountants and engineers

With the eventual utilization of the latest type 'electronic brain' to process claims in seconds the time may come when a seaman will be able to collect his benefits without appearing at the Plan office.

The information made available by the 'electronic brain' can also prove invaluable in reaching union policy decisions. Among the preliminary information revealed by the six month study, for instance, is the fact that some 500 NMU members sailed only from one to twenty-four days during the three-year period surveyed. This type of information can be used to aid in reclassification of the Union's Group Shipping system, which is based on sailing time seniority.

The use of 'electronic brains' does not mean that the machines are taking over. Computers require human intelligence to instruct them or set up a program. The data processing machines themselves are only insensible aggregations of transistors, vacuum tubes and resisters held together by miles of wire. They come alive only by guidance from their human masters. Policy will continue to be set by union leaders, the trustees of the Pension & Welfare Plan and the membership. The basic purpose of the computers is to supply accurate and speedy information upon which sound decisions can be reached.

Actually, the NMU and the various union welfare plans face many of the same probleme that confront big businesses such as insurance companies, giant retail stores, and manufacturing organizations.

Preparing a payroll for 20,000 employees or billing tens of thousands of customers is not too much different from handling 40,000 seamen's claims for pension, vacation, hospital and unemployment payments.

The data processing machines can contain on a small spool of magnetic tape information that would otherwise require acres of file cabinets, forests of paper, and armies of file clerks.

An NMU Vice President, Bro. Robert Nesbitt (on left) is here seen inspecting spools of magnetic tape containing data covering seamen on 18,000 voyages. With him is the programme supervisor at the IBM Data Processing Centre



Punch card machines, once thought the last word, are outclassed by the magnetic type digital computers.

The uses to which the machines with the magnetic memory can be put seem limitless.

In 1957 Grace Line installed a high speed computer known as the IBM Type 650 Tape Electronic Data Processing System. The machine computes and prints paychecks with all deductions for 3,000 men in a matter of minutes. It can also be used to determine the most efficient manner of pier cargohandling and shiploading.

An airline has used computers to decide how to reroute its planes in the event of a breakdown. The 'electronic brain' indicated the best of several thousand possible solutions enabling the company to save a million dollars a year formerly lost in revenues while planes stood idle on standby.

Aircraft designers save the costs of building expensive test models by feeding the dimensions of the new design and other data into the 'electronic brain' and determining mathematically whether the proposed model will be effective.

In the future, doctors and lawyers may get an assist from the magnetic memory machine. The time is not far off, experts say, when a doctor will be able to feed a patient's symptoms into a computer stored with tens of thousands of medical case histories and receive an accurate diagnosis of the patient's disease. Similarly, lawyers may be spared the drudgery of searching for legal precedents that apply to a case in hand.

The technique may even be applied to the field of romance. Take a seaman who wants to seek a wife scientifically. He will go to an 'electronic marriage counselor', take a personality test, have his handwriting analyzed, and record his preferences in women. This material will then be coded and fed into a computer. The machine comes up with a list of 'possible mates' and from there the suitor is on his own.

(from NMU Pilot)

#### (Continued from page 241)

permits trawling at high wind force, he continues. Therefore, it is important to improve the seagoing qualities and the gear to take advantage of this possibility without danger to the crew.

'Rolling is governed by the stability, and the reactions of the crew to the ship's motion are determined by the accelerations. The greater the period of roll the less unpleasant the ship's movement are felt to be. It is therefore important to design a ship with a stability giving a maximum period of roll without endangering its safety.'

#### Solid ballast

One of the steam trawlers starting its trip with a GM of 2.07 ft. was tender as compared with the other ships, and it was felt to be so by the crew. As a result of serious complaints by the crew, who had a feeling of insecurity owing to its tender behaviour on a seaway, more solid ballast was put into the vessel. The steam trawlers consume about eleven tons of coal and 2.3 tons of water daily, while the daily fuel consumption of a motor trawler is about six tons of oil.

'Trawlers often ship large quantities of water and in cold weather are subject to icing. Thus, on one occasion off the Greenland coast, trawling had to be suspended due to all-over icing. The motor vessel had become so tender that the captain had to stop to remove the ice.'

Recalling that experienced fishermen feel that the rolling motions of modern trawlers are on the whole somewhat less unpleasant than those of the older vessels, Capt. Moeckel says the notable changes in the motion of the ships brought about by the load in the fish hold are also shown by a difference between the acceleration at fore and aft. When the hold is empty, accelerations are considerably greater forward. This difference becomes less as the load increases, as shown by measurements on trawlers with a heavy catch.

'These experiences show that trawlers are more sensitive to stability than is commonly supposed – not so much with regard to safety against capsizing as in respect of the safety of the crews when working the net and the catch.'

### (Continued from page 242)

The German radio officer's nightmare really begins, however, a couple of days or so before his ship enters a home port. The paper work which has then to be done assumes terrifying proportions. Most of the crew will be discharging themselves and their wages, overtime and other allowances and deductions have to be calculated to the last penny – and inevitably not on the convenient basis of a full month's work! It is perhaps not suprising that he gets very little time off for himself in port.

It might be argued in connection with these additional duties that it is not so much the extra work which is disquieting, but the fact that it has to be performed in addition to the highly responsible and exacting task of attending to the radio duties. Fortunately a number of bodies are interested in the extent to which this extra work may be at the expense of a ship's safety. That the work of a ship's radio officer is highly responsible and extremely trying to the nerves is evidenced by statistics published by the ILO which show that this work has the highest incidence of sickness and absence through ill health.

# What they're saying



#### Move to the rear!

PASSENGERS, PLEASE MOVE TO THE REAR!' This cry from the throat of a harassed New York City bus driver brought no results. At each stop, the front section of the bus became wedged tighter with suffering bus riders.

But union men are ingenious. The driver, a member of the Transport Workers Union, AFL-CIO, finally drew up to the curb in front of the United Nations, stopped his bus, and stood up.

Pointing dramatically to the shimmering glass skyscraper that houses the UN, he said 'If we can't get together on this bus, how can we expect those fellows in there to get together and keep us out of war?'

The driver got results – his passengers moved to the back and he proceeded on a trip that was more comfortable for everyone. Union men hope that the UN continues to make its point equally well within its own glass walls – and that the eighty united nations will cooperate to create world prosperity and preserve world peace.

From Railway Carmen's Journal

#### Rather like salvation

AN EFFICIENT AND ECONOMICAL SYSTEM OF TRANSPORT is rather like salvation: we are in favour of it, but no-one will accept the uncomfortable disciplines and ideas which alone will ensure it.

Sir Reginald Wilson, member of the British Transport Commission

#### No longer calling the shots

THERE IS MOUNTING DISCOMFORT TODAY in the ranks of the fat cats of the oil industry who, up until recently, merely had to sit back and watch the profits roll in. For years, the best gimmick they had was the runaway-flag shipping operation. This gave them virtual immunity from American taxes, decent labor standards and other essential regulations that Us-flag operators had to contend with.

Starting in 1958, however, various developments began stripping away the protec-

tive covering which cloaked such substandard operations. For one, the SIU won a decision before the National Labor Relations Board paving the way for American sea unions to organize the large American owned segment of the runaway fleet. Next came the unity among American maritime unions and the foreign unions via the International Transportworkers Federation, which produced last December's successful boycott demonstration that focused world attention on the nature of runaway shipping for the first time.

The joint union action at the same time prodded Congress to take some cognizance of a situation that had up until then been carefully swept under the rug. Legislation was introduced hitting at the unfairness of the twenty seven percent oil depletion allowance and the specialized tax treatment for the oil industry. Indeed, how can an industry ask for special tax treatment when it refuses to fly the American flag on the major portion of its shipping as a device to escape American taxes and jeopardize American conditions?

Admittedly, the situation is complex. The fat cats have also arranged it so that American-flag tanker operations are in trouble. Their obvious 'solution' would be to find a way to put all their shipping under foreign and runaway flags, but no one, least of all the American maritime unions, would buy a deal like that. The fact is that now the shoe is on the other foot.

Instead of calling all the shots, 'big oil' is now somewhat in the position of having to defend its misdeeds of the past. Here at home, efforts are underway to restore the balance by reviving the American-flag section of the tanker industry through legislation and by organizing the Americanowned runaway tanker fleets. Although a slow process, this is paying off.

Liberia is losing ground as the primary runaway ship haven, and Greek owners are actually registering their ships in Greece these days. With the union, Congressional and public focus on the whole runaway issue, more positive progress is in view at long last on this long-standing problem. The stu, with the full support of its mem-

bership, intends to push as hard as it can to bring those ships under union contracts.

From Seafarers' Log

#### Cheap wages mean slave labour

AT THE 26TH ANNUAL CONFERENCE OF THE SOUTH AFRICAN COUNCIL OF TRANSPORT WORKERS the delegates assembled reaffirmed the traditional policy of the 'Rate for the Job' as opposed to Job Reservation. In so doing the Conference was merely confirming one of the basic principles of trade unionism, which wide experience has amply demonstrated in many countries besides our own, is the only reliable norm if the standards of all workers are to be adequately safeguarded. Far be it from us to deny that the Minister of Labour is perfectly sincere in his futile attempt to introduce Job Reservation as a panacea to current labour-management problems in our multi-racial Society. We know the Minister is sincere - his persistence as demonstrated by his recent amendments to his original provisions in the Act make that much only too tragically clear. For our part, we just as sincerely believe that Job Reservation spells disaster for the workers.

Why then do some workers - including groups of transport workers - believe that their salvation lies in the direction of Job Reservation? We readily confess our inability to understand or appreciate this minority view. As we see it Job Reservation has been artfully designed to break down civilised standards in this country to open the door for the worst type of cheap labour exploitation. The clothing industry should serve as a timely lesson for all workers; the lengthening queues at the unemployment offices all over South Africa point unmistakably to the testing period ahead of us all. It is imperative that the workers stand firmly by their hard won standards and refuse to have anything to do with any device that attempts to trifle with them. Unequal wage rates constitue a mortal threat to the very livelihood of every worker in the country. Cheap wages mean slave labour in any language.

From 'Transport' South Africa

# **International**

# **Transport Workers' Federation**

President: FRANK COUSINS General Secretary: O. BECU

industrial sections catering for

RAILWAYMEN
ROAD TRANSPORT WORKERS
INLAND WATERWAY WORKERS
PORT WORKERS
SEAFARERS
FISHERMEN
CIVIL AVIATION STAFF

- Founded in London in 1896
- Reconstituted at Amsterdam in 1919
- Headquarters in London since the outbreak of the Second World War
- 210 affiliated organizations in 66 countries
- Total membership: 6,500,000

### The aims of the ITF are

to support national and international action in the struggle against economic exploitation and political oppression and to make international working class solidarity effective;

to cooperate in the establishment of a world order based on the association of all peoples in freedom and equality for the promotion of their welfare by the common use of the world's resources;

to seek universal recognition and enforcement of the right of trade union organization;

to defend and promote, on the international plane, the economic, social and occupational interests of all transport workers;

to represent the transport workers in international agencies performing functions which affect their social, economic and occupational conditions;

to furnish its affiliated organizations with information about the wages and working conditions of transport workers in different parts of the world, legislation affecting them, the development and activities of their trade unions, and other kindred matters.

### Affiliated unions in

Argentina • Australia • Austria • Belgium • Brazil
British Guiana • British Honduras • Canada • Ceylon • Chile
Colombia • Costa Rica • Cuba • Denmark • Ecuador • Egypt
Estonia (Exile) • Finland • France • Germany • Ghana
Great Britain • Greece • Grenada • Honduras
Hong Kong • Iceland • India • Indonesia • Israel • Italy
Jamaica • Japan • Kenya • Luxembourg
Malaya • Malta • Mauritius • Mexico • The Netherlands
New Zealand • Nicaragua • Nigeria • Norway
Nyasaland • Pakistan • Panama • Paraguay • Peru
Philippines • Poland (Exile) • Republic of Ireland
Rhodesia • St. Lucia • South Africa • South Korea
Spain (Illegal Underground Movement) • Sudan
Sweden • Switzerland • Tanganyika • Trinidad • Tunisia
Uganda • Uruguay • United States of America

# Publications for the world's transport workers

Press Report Two separate editions in English issued in London and Singapore