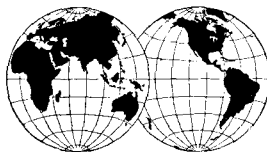


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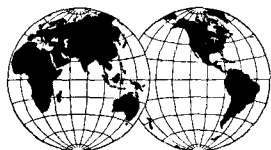
World Championship – Jules Rimet Cup 1970

Final Competition

TECHNICAL STUDY

FÉDÉRATION INTERNATIONALE DE FOOTBALL ASSOCIATION

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World Championship – Jules Rimet Cup 1970

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TECHNICAL STUDY

## **FÉDÉRATION INTERNATIONALE DE FOOTBALL ASSOCIATION**

Sir Stanley Rous, C.B.E. (England), President  
Dr. Helmut Käser (Switzerland), General Secretary

### **TECHNICAL STUDY GROUP**

Mr. Harry H. Cavan (Ireland North), Chairman  
Mr. Walter Winterbottom, O.B.E. (England), Director  
Mr. Dettmar Cramer (Germany FR), member  
Mr. Ron Greenwood (England), member  
Mr. Sandro Puppo (Italy), member  
Mr. René Courte (Luxemburg), Secretary

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## INTRODUCTION

The first time a special group of coaches was brought together to carry out a study of football in a World Cup Final tournament was in 1966 in England. The report on observations of match play also contained a comparison of training preparation of teams, and a synopsis of the views of their managers/coaches on matters concerning organization, accommodation were made to the FIFA Executive Committee. Some of these were immediately accepted in whole or part, e.g. substitution, training of referees and a film on fouls, while others, involving changes of competition arrangements, required more lengthy consideration.

The exercise proved to be worthwhile, and therefore it was decided to set up a similar group to look at the final competition in Mexico. At first it was thought to invite coaches from various continents, but the working problem of interpretation led to a selection of manager/coaches who could communicate readily in English: Walter Winterbottom (England), Dettmar Cramer (Germany FR), Ron Greenwood (England) and Sandro Puppo (Italy).

Under the chairmanship of Harry Cavan, Vice-President of FIFA and Chairman of the Technical Development Committee, the group first assembled in Mexico eight days before the opening match to discuss arrangements. As before, a questionnaire had been sent to each of the 16 nations in the competition asking for details of players, preparation training and programme of international matches. Each observer was allocated to a group of the competition and sought discussion with managers/coaches to sound their views on matters such as headquarters and training conditions, organization of the tournament, referee control, differences in interpretation of laws, problems of acclimatisation and trends in fitness training and effective styles of play. Further interviews took place during the competition itself. Each match was watched and also reported upon.

Then a general report was compiled for a meeting in London in August 1970, when the managers/coaches from the teams reaching the semi-finals in Mexico were invited to give their reflections on the tournament and discuss recommendations aiming to improve future competitions.

## RECOMMENDATIONS

The game of football has spread throughout the world. There are 138 countries in membership with FIFA and in many countries Soccer is the greatest national sport. The phenomenal popularity of the game, the size of its spectator following, and the prestige attached to various forms of competition at club and national level, have made Association Football a powerful social force. If its healthy growth is to continue, it is essential that its laws of conduct be universally accepted and obeyed. This is more easily said than done. Differences in language, culture, custom, temperament and climate bring out differences in styles of play, and interpretation of laws, which can create conflict on the field of play.

The rewards of success in the World Cup tournament are immense. The competition adds stimulus to the game everywhere. A country's achievement in the competition encourages greater participation and higher attendances in its domestic football. With so much at stake, it is important to strive continually for conditions and arrangements which encourage good standards of football and behaviour.

The following recommendations arise from discussions with the managers/coaches of the 16 teams taking part in the final tournament in Mexico. Some touch upon old ground, some are tentative suggestions requiring further careful investigation before any change is contemplated. Change tends to beget more change and care must be exercised to see that when new proposals are under consideration something is not lost which is traditionally of great value.

### PRELIMINARY COMPETITION

It must be emphasized that the views expressed in this section come in the main from managers and coaches engaged in the competition and are commented upon by the Technical Study Group as part of its brief from FIFA. Such proposals as are advanced are put forward at this stage for the consideration of the FIFA Organizing Committee. The views put forward are only some of the more interesting points of view which were felt to require consideration. Mostly the opinions given were those of managers/coaches speaking in a personal capacity and were not necessarily the views of their National Associations.

Many of the managers pointed out that some teams come through to the final competition without very serious competition in the preliminary competition, whereas other teams have to fight very hard indeed to win a place in the final tournament. Teams, it was felt, should at some stage be grouped to play on an inter-continental basis, since long distance travel

is no longer a problem under modern conditions. Several proposals for change have already been considered. One favoured preliminary competitions being held in confederations, thereby keeping down travel costs. The best teams from each confederation would then compete in the final competition. There is a rooted objection to this proposal, and the managers/coaches feel that the preliminary competition should get nearer to a truly open competition, thus ensuring that all teams have an equal opportunity to reach the final competition.

As a step in this direction it is suggested that the preliminary competition might go forward as at present on a home and away basis of 'zoned' leagues within confederations to produce 30 nations. This would allow more teams to emerge from confederations with strong footballing nations as members. The 30 teams should then be seeded: 15/15 and drawn against each other for the final '15' matches to be played on a home and away inter-continental basis to produce 15 teams to join the host country in the final tournament; it will be realized that this scheme would require the 'cup holders' to qualify.

Should it be decided that a greater number of teams would enter the final tournament, then the number in the final round of the preliminary competition could be adjusted accordingly.

The merits in this suggestion are

- (i) a fairer method of arriving at the final 16 teams;
- (ii) it acknowledges travel and cost factors and confederation interests;
- (iii) when reduced to 30 nations there would be greater interest in the next stage of the tournament;
- (iv) seeding before drawing lots ensures that the best teams have the opportunity to reach the final, while smaller nations would have the benefit of experience and the propaganda value of entertaining a powerful footballing nation's team in its own country.

Several other ideas were put forward, the most drastic being that of dispensing with a final competition altogether by allowing the winners to emerge from a round of home and away matches as with the European Clubs Cup competition. This, it was felt, would not be acceptable under any circumstances as it would take away the focal point of the competition and would destroy the whole concept of the World Cup.

## FINAL COMPETITION

The present arrangement of the final tournament is thought to be satisfactory. Most of the proposed changes tend to lengthen the competition, e.g.:

- (i) Increasing the number of teams, say to 24, having four groups of six teams for the eight finals.
- (ii) Re-arranging the competition, as for example by having two leagues of eight teams, to produce four semi-finalists. This would give an initial seven matches for every competing team.

Another proposal is to have the eight teams emerging from the present system to the quarter finals to play again in two leagues of four, the winners playing in the final and the second team in the final for the third and fourth place.

More teams in the final were thought to be desirable by some managers, because of the preparation involved. Others felt that already the length of the competition produces conflict with the interests of domestic leagues.

If the present system is to continue then there is need to:

- (a) Dispense with the drawing of lots in the event of a tie situation. Instead some use should be made of a mark of football achievement such as the team to have scored the first goal in the match. This suggestion has, however, since been cut across by the decision of the International Board as to the taking of penalty kicks to resolve such a deadlock situation.
- (b) Arrange a rest gap. If it is not possible to have eight grounds so that matches in the eighth finals can be played on the same day (except for the opening match), then the rest gap between the last matches of the eighth finals and the quarter final matches should be at least three clear days. Two days does not give enough time to recover from fatigue and minor injury.
- (c) Consider equality of treatment of all teams. At present, it was thought to be unfair that winning teams in eighth finals should have the additional reward of not having to travel for quarter finals. If eight grounds are available then this presents little problem, since teams will have to travel some distances, even in matches for eighth finals. All semi-finalists should, as far as possible, be treated alike in the question of travelling and moving headquarters. There should never be less than three whole days of rest between match days.
- (d) Improve arrangements to keep pace with modern requirements. The size of the official party should be increased to 30, to include such officials as doctors, masseurs, coaches and any other ancillaries at the discretion of the national team within the stated limit.

Some general points of organization associated specifically with conditions in Mexico were also mentioned:

- (i) Teams would rather play matches under floodlight, if necessary, to avoid playing in extremes of solar radiation. Teams should not be



asked to play, for any reason, at the hottest time of day in parts of the world where day temperatures are unduly high at the time of the competition.

- (ii) Three matches in nine days, and four matches in 12 days, played in hot weather, is too much. Players lose condition and tactics must of necessity be used which conserve energy.
- (iii) Whenever the final competition is allocated to a country where there is clearly special need for early arrival to acclimatise players, FIFA should meet an agreed proportion of the additional expense to enable all competing nations to have essential time for preparation training.
- (iv) If there are problems of altitude, then care should be taken to avoid great differences in altitude between one match venue and another.

### TEAM HEADQUARTERS AND GENERAL CONDITIONS

Various kinds of headquarter accommodation were used in Mexico. Nations with long experience in these final tournaments are aware of the requirements and prepare more thoroughly, sending delegates and managers to preview available accommodation. Most teams were satisfied with headquarter and training arrangements, though the 'barn-storming' of hotels by chanting mobs of supporters provided an unexpected disturbance when players were required to sleep. Some of the smaller competing nations were dissatisfied with their accommodation and training grounds and felt that there was inequality of treatment. Everything should be done in future competitions to ensure good accommodation at reasonable cost for all teams, and equality of treatment in training facilities and equipment.

Though there are different views as to the ideal type of headquarters, there is general preference for a quiet hotel, special training camp or hostel away from the centre of town, but not too far away from the match ground. Such quarters should ideally be occupied only by the team and its officials, or else some distinct part of the hotel or centre should be allocated to them.

The leaders of the National Associations whose teams are engaged in a particular sub-centre should meet formally with the chairman of the local organizing committee and, in consultation and with general agreement, accommodation, and especially training facilities, should be allocated to the national teams. It is important to ensure that the training grounds allocated are adequate and meet the needs of the national teams, and that proper conditions of privacy can be ensured in the grounds allocated.

Hotels and motels on main thoroughfares are unsuitable, particularly if they are inhabited by holidaymakers, among whom are attractive young women. Several managers openly discussed the problem of sex, when teams are involved in a competition requiring five to seven weeks away from their homes.

The growing demand for news and television items during preparation training and the competition itself seemed to have reached such proportions as to cause inconvenience to many managers, who find much of their time taken up by interviews and telephone calls. The practice of having another official of high standing, knowledgeable about the team's affairs, to act as the press relations officer has proved most helpful in relieving the manager/coach from constant interviewing. It is suggested, however, that the National Organizing Committee or FIFA should arrange a special programme for general interviews, giving a list of questions which journalists wish to be answered, so that not only can the general interview take place but a statement can also be issued. Similar arrangements should be made for 'open' training sessions for photography and television recordings to help reduce the constant stream of requests for special privileges.

The Organizing Committee of FIFA should make sure that the local Organizing Committee in each sub-centre supplies to each team at least a dozen footballs, but preferably 20, similar to those chosen for the competition.

The problem of living together for days on end, where the squad consists of players with different social backgrounds, levels of education and cultural interests, is never simple, even though there is a common dedication to football teamwork. The long period of preparation in addition to the tournament resulted in psychological problems connected with boredom and homesickness. Some players were affected more than others, and managers felt that in future more consideration should be given to the question of recreation and entertainment.

The war situation back home in Israel put a special strain on the younger Israeli players, and the Peruvian team had the agonizing worry of the terrifying earthquake disaster which struck their country with almost unprecedented violence, while the Rumanian team had equally frightening and grim news of the devastating floods in their country.

The ability to speak Spanish was clearly an advantage to some teams, whose players could move around freely, could listen to radio and television and enjoy a choice of restaurants and cinemas. In the same way, teams accustomed to long periods in training camps were more able to accept the long time away from home. It is suggested that the National Organizing Committee should set up an Entertainment or

Recreation Sub-Committee, which should specifically look at the detail of recreation and advise or make provision for such things as: regular postal services; telephone communication; newspapers; libraries and reading material; programmes of sight-seeing; entertainment, local and cultural, outside the hotel; links with families.

The Mexican team were supplied with television tapes or films of matches. These not only provided entertainment but were also of help in studying the play of opponents. It is for consideration whether a library of television films or tapes of matches could be made available so that teams could use them as required. Although FIFA had taken trouble to issue each team with copies of the films on interpretation of the laws, some teams were unable to use them because it was impossible to get hold of a suitable projector. It was felt that the local Organizing Committees should ensure for the future that suitable projectors were available on hire during the period of the tournament. It was also felt that when the contract for the TV rights of the next World Cup was negotiated a clause should be inserted in that contract stipulating that copies of all matches should be made available so that competing nations could use them on request.

The tickets provided for officials with the national teams should afford them good quality seating in a special enclosure which should provide a proper view of the game and also be easily accessible to the players' changing rooms.

Each team should have the use of a training ground which is privately enclosed, with adequate changing, massage and showering facilities, and provision for hot and cold drinks. Enthusiastic spectators were sometimes a nuisance at open training grounds in Mexico.

Teams were pleased that local Mexican teams, both amateur and professional, were available to provide suitable training matches during the fortnight or more of acclimatisation. It was felt that the attention of all national associations should be drawn to the fact that there is no objection to teams playing games during the competition itself with local teams, so long as there is no advertisement of such games and no money is collected at the gate: such games should be used to help the players who spend most time on the benches as reserves so that they may be kept match fit. This was considered to be a problem by most manager/coaches. Any such arrangements should only be organized however after due consultation with the FIFA Organizing Committee and with that Committee's consent and approval.

Several teams took with them a cook and special food and beverages, to be sure of having meals and drinks to their liking. The local Organizing Committee should inform competing countries what customs

and health regulations there are concerning the importation of food and drink, so that arrangements can be made well beforehand. It must be said that the quality of food in Mexico in hotels and motels used as headquarters was excellent.

## INTERPRETATION OF LAWS—REFEREES

Despite gloomy forecasts, the final tournament in Mexico not only produced some remarkably good football but also many good football matches which were played in the best spirit of sportsmanship and were well controlled by match officials. A most notable fact was that no player was sent off the field.

Credit for this must first of all go to the competing teams for self-discipline even when playing under exhausting conditions with partisan and vociferous crowds. Then praise must be given to the referees, to the special training they readily undertook, and to the conferences and specially prepared films aiming to get a more uniform interpretation of the laws.

Managers and coaches were appreciative of the improvement in the overall standard of refereeing, and the following comments and suggestions are intended to be constructive in seeking further progress:

- (i) The idea of preparing referees by conferences and films before an important competition should be extended to competitions in the confederations. Indeed, the training of referees should be carried out as assiduously as that of the teams taking part in the competition. Referees must keep up with the constant development of the game.
- (ii) Acclimatisation necessitated early assembly of referees in Mexico and thereby provided opportunity for conference discussion. On future occasions, it is thought that referees would benefit by attending a training conference several months before the tournament. Other referees from various continents should also be invited, so that agreements on uniform interpretation could be spread throughout the world of football.
- (iii) Selection of referees from any countries was thought to be useful in raising standards, providing these referees had distinctive ability and sufficient experience in refereeing top competition matches outside their own country and possibly in another continent.
- (iv) Senior referees do not necessarily make good linesmen. Some referees, lacking experience as linesmen in recent years, performed these duties indifferently, and occasionally interfered with the

duties of the referee on the field. It would be well for FIFA to require all referees in the final list for selection to renew experience by running the line of at least five games in the 12 months prior to the Finals.

- (v) Consideration should be given to special environmental conditions and other factors; for example, some players in games played at mid-day in the broiling heat were losing up to threelitres of water by half time. It is essential that they should be able to drink, during the match if necessary, provided they go to the touchline to do so.
- (vi) Control and decisions were good on the whole, though there were several instances when a direct free kick was given outside the penalty area when clearly the infringement had taken place inside the area.
- (vii) The card system of notifying a caution and sending off should be universally applied in top competition.
- (viii) Though teams understand the interpretation of the laws, they are often let down by temperamental behaviour.
- (ix) Films on interpretation of the laws should be sent out to competing countries some time before the final tournament, so that they can be studied carefully.
- (x) There are differences in practice acceptable to players and referees in Central and South America compared with Europe and Asia. Coaches, players and referees in Central and South America seem to accept that a player can foul outside the penalty area with impunity, i.e. although they may be penalized for the offence they will not be cautioned or sent off. In Europe, referees punish intention as well as action. Whereas only action is punished in South America. European referees also tend to be more meticulous about player and ball position at free kicks and throw-ins. There are differences also in the attitude towards a high kick, a high tackle, tackle from behind, sliding tackle, standing to obstruct with wide stretched arms, and the advantage rule. It is suggested that films or loops should also be prepared by FIFA on these matters.
- (xi) Some managers were of the opinion that there was no real chance of widespread uniformity of interpretation until a greater exchange of referees took place between the continents and international courses were held regularly.
- (xii) Some fear was again expressed that star players would be marked men and that the task of tackling a star player would be undertaken by several opponents in order to avoid detection. In the event, though a few games were spoiled by too much intimidating, dangerous and sometimes foul tackling, most teams played clean football.

## SPORTS MEDICINE

The Technical Study Group were approached by the majority of team doctors who felt that a conference should be called to discuss the special physiological and psychological problems of the World Cup competition in Mexico, and it was felt that an opportunity had been missed during the tournament itself. It may be possible to redeem this situation and to consider recommendations for arrangements for a conference before or during the next tournament in the Federal Republic of Germany.

Dr Guillen of Peru also suggested that FIFA should set up a study group to inquire into the problems related to the integration of team members of varying social backgrounds and status.

### PREPARATION TRAINING AND PROGRAMME OF INTERNATIONAL MATCHES

The amount and kind of special training of squads in preparation for the World Cup final competition by the 16 competing nations varied greatly; and so, too, did the number of matches arranged for international teams. There were several influencing factors.

- (a) Players chosen to represent their countries belonged to clubs, most of which had commitments with intensive league programmes and cup competitions throughout a football season of eight to nine months' duration. Some of the national associations can only call on the services of club players for international matches and special training within the limits agreed with leagues and clubs.
- (b) Countries, such as Sweden, USSR, Czechoslovakia, Rumania and Bulgaria have a break in their football season of two to three-and-a-half months in winter (December, January, February and March), and in order to fit in with the selected times of May to June for the World Cup final in Mexico, some adjustment was necessary to the domestic league programme. For Brazil and other South American countries, there is a break in January at the height of their summer.

In these periods when domestic league competitions are suspended it is possible for the national squad to make a tour of other countries where football is played during these months. USSR, Czechoslovakia, Bulgaria and Sweden organized tours in South America during this winter period, and Brazil arranged a tour of Europe at the same time.

Countries which restart their football seasons in March feel that they are at a disadvantage when arrangements are always made for the final tournament to take place in May and June; players have not reached their peak form and there is little time in two months to gain experience of playing together.

On the other hand, countries which normally complete their season's league fixtures in May or June, find that their players are tired after a full season of club matches, often with two matches a week in its final stages.

- (c) Most countries had a four year plan, but preparation training increased after the team qualified in the preliminary competition. El Salvador and Morocco only commenced serious preparation after qualification and the appointment of their coaches some three months and six months respectively before the final competition.
- (d) Some nations had the additional benefit of having participated with amateur teams in the Olympic Games football tournament in Mexico in 1968. Other nations were able to fit in tours of South America, including visits to Mexico, where they gained experience of the problems associated with altitude, temperature, etc.

As the host nation, Mexico made special efforts to prepare its team and, in the event, achieved greater success than in any previous final competition. Players in the squad were brought together from January until the competition, during which time they played 26 matches, including some in Mexico City against all the teams in the final tournament except Israel, Morocco and El Salvador.

They were privileged also in having the magnificent new Centro de Capacitation, headquarters ideally constructed and equipped for the purpose of training a soccer team and situated in close proximity to the Azteca Stadium.

Apart from Mexico, no other country came near to matching the thoroughness and extent of Brazil's preparation training and match programme. If success in a final competition depends on this, then the detail of the arrangements by Brazil deserves close study.

Though training and matches with an eye to selection took place in 1966 and 1967, the year 1968 saw the beginning of full-scale preparation of the Brazilian team. In this year, after 35 consecutive days of squad training, the team made a long tour in June, playing five teams in Europe, two matches in Mexico, two against Peru and two against Paraguay. Altogether in that year the national team played 21 matches. In the following year, 1969, in addition to 13 matches, Brazil visited Bogotá, 2,630 metres in altitude, for a period of training lasting 20 days. The selected squad for the World Cup final competition assembled on

February 12, 1970 and stayed together, playing nine matches, before arriving in Mexico on May 1, exactly one month before their first game of the tournament.

This preparation training period of 3½ months, included 92 working days and 19 free days. The working days were split into two training sessions, giving a total of 4,605 minutes of training apportioned as follows:

	Minutes
Warming up .....	600
Physical training:	
(i) Long distance—Cooper aerobic USAF method .....	380
(ii) Gymnastics—no weights, but resistance work in pairs .....	400
(iii) Interval training—200 metre basis .....	70
(iv) Circuit training—no weights .....	70
Technical .....	530
Tactical:	
(i) Group work on reduced areas .....	430
(ii) Team work on whole field .....	715
Practice matches—13 .....	1,170
Recreation .....	240
Total .....	<u>4,605</u>

Within the four year period Brazil had played against Bulgaria, Czechoslovakia, England, Germany FR, Mexico, Peru and Uruguay.

USSR was also able to plan several training periods for its squad of players, and arranged an extensive match programme against other countries and club teams:

1967—15 national, 8 clubs; 1968—12 national, 5 clubs; 1969—8 national, 6 clubs; and 1970—4 national, 5 clubs.

England, Sweden, West Germany and Israel had between 10 and 13 matches in seasons 1968 or 1969; most other teams arranged six or seven matches a season.

In Western European countries where the league programme of club matches continued throughout the winter until the end of April, 1970, players were not brought together for periods of special training except for the few days when teams assembled for international matches.

On the other hand, USSR, Rumania, Bulgaria, Czechoslovakia and Sweden arranged training periods and tours during the winter months, when domestic club football was suspended.

Uruguay adopted a three-stage programme of building up the national team:

- (i) Winning the qualification games using experienced players from Nacional and Penarol.



- (ii) Selection and training of young and still inconspicuous players in various centres, from which 28 new players were chosen for the squad of 40.
- (iii) Intense preparation of the 40 players, who were reduced in March 1970 to 26 and then to the final 22.

The programme of training and preparation during 1970 included seven official matches in Montevideo and then the team was assembled on April 18 for special acclimatisation tour and training on the way to Mexico.

Following the keen disappointment at the team's showing in 1966, Bulgaria made extensive preparations at all levels of international football to improve their performance. They won the European Youth Tournament in 1969, and were the unofficial European Under-23 Champions. The senior team played matches all over the world, drawing with England and Italy. During the closed season, December to March, in 1969, they undertook a tour of South America, including four games at altitude, two in Peru and two in Mexico. In January, 1970, a squad of players was taken to a high altitude training camp to undergo hard physical conditioning and tests.

Rumania began special preparations two years before the final competition. Each time an international match was played on a Sunday, a squad of 16 to 18 players was assembled on the previous Monday and stayed together until the following Monday. As time progressed, preference was given to younger players and the team's average age fell to 24. Physical tests were given regularly. They included:

- (i) 30 metre sprints
- (ii) 60 metre sprints
- (iii) 90 metre sprints with right angle turns at each 30 metres
- (iv) 10 stint circuit test
- (v) Technical test with football.

In the last six months, Rumania used the winter break for medical checks and three weeks' training in Bucharest, followed by a tour in South America with six matches in Brazil, one in Argentina and one in Peru. Final acclimatisation took place in April and May before departure to Mexico on May 11.

## ACCLIMATISATION

It is well-known that changes of environment, which affect physiological functions of the body, can also affect fitness and playing standards of football teams. Medical science has done much to prevent serious

disturbances by using antidotes for virus infections, and saline intake to counteract loss of body salt through excessive dehydration. Experience at the time of the Olympic Games football tournament had dispelled the exaggerated fears about the ill-effects of playing football in Mexico. Nevertheless, the value of pre-acclimatisation experience and of a period of acclimatisation immediately before the World Cup final was accepted by most competing teams. Special acclimatisation outside their own countries was not necessary for the teams of Mexico, El Salvador and Peru.

Israel (Guadalajara and Leon), El Salvador (Leon), Bulgaria (Leon and Mexico City), Czechoslovakia (Guadalajara), Brazil (Puebla) had gained experience of match play at various stadia during the Olympic Games.

USSR, England, Germany FR and Bulgaria made special tours, sometime before the World Cup final, to South America which included matches in Mexico.

Special training at high attitude some time before the assembly of the squad for the World Cup was arranged by Rumania (three weeks in the Carpathian Mountains), Czechoslovakia (two weeks at Font Romeu in France), Morocco (three weeks at 3,000 feet), Israel (ten days in Addis Ababa) and Bulgaria (Training camp in mountains).

However, the amount of acclimatisation just before the event in order to improve the oxygen intake capacity of the blood is claimed to be the important factor. Critical altitudes are above 2,000 metres and acclimatisation at altitudes higher than this is said to improve oxygen intake capacity more completely.

A comparison of the acclimatisation preparation just prior to the eight finals shows the importance which various countries attached to this physiological phenomenon. The lengths of the pre-competition period of acclimatisation are shown diagrammatically, but the detail of the programme is also of interest. (See attached programme.)

Uruguay placed great emphasis on the final spell of preparation. The squad left Montevideo on April 16 and played matches in Lima (Peru), then went on to special training and a match at Bogotá (Colombia). From there to Quito (Ecuador), down to sea level to Guayaquil and back for another match on May 12 at Bogotá. The team arrived in Mexico on May 14 and went to their headquarters in Puebla.

Brazil and England left their countries a month before the competition for tours and matches in Mexico, Ecuador and Colombia.

USSR, Rumania and Bulgaria spent a fortnight in the mountains before flying to Mexico to arrive on May 10, 13 and 16 respectively. Czechoslovakia and Belgium went direct to Mexico arriving on May 7 and 9.

Most other teams arrived ten days to a fortnight before the first match. Germany FR arrived on May 16, going straight to Leon. They had planned to test all players for acclimatisation in a pressure chamber in Cologne but, in the event, the congested league programme due to bad weather prevented all players from taking these tests, and also curtailed the programme of general training, though two international matches were played in May before departure.

The deficiency of oxygen in the blood when performing strenuous activity at high altitude increases respiration rate and induces feelings of discomfort. Rumania found that, whereas at home a 100 metre run required on average two respirations, in Guadalajara an all-out sprint over this distance demanded five respirations.

Early arrival in Mexico was necessary for two other adaptation reasons, that of the body's adjustment to the time change, which takes between six to ten days to become acceptable, and that of performing strenuous activity under strong solar radiation, which causes heavy loss of body moisture with the discomfort of thirst.

The combined efforts of these changes caused some players to lose normal standards of physical condition which, in turn, affected playing standards. Reports on tests and individual case records, taken by medical officers, afford information of value to future competitions where environmental changes call for a period of acclimatisation, and where it is necessary to plan a programme to obtain the optimum performance levels.

However, football is a game of skill, and it is possible therefore to use tactical and technical skill to control the speed of play. Several teams had developed a strategy of play which can be called 'stop-go' football, where the ball is 'held' or interpassed defensively before the moment when it is decided to make an attack. It is possible that this kind of approach caused teams to concentrate on conserving energy and lessened the inclination to go 'all out' to fight for possession and counter attack. In contrast to this approach a few teams, like Brazil, Peru and Germany FR, excelled themselves in pressing forward in attacking play.

The fears associated with acclimatisation seemed to disappear as teams began to play and prove their stamina. Some teams grew in strength and belief in their skill as the competition progressed, none more so than Brazil, Italy, Germany FR and Uruguay who reached the semi-finals.

It would be wrong to discount the weakening effects of heat and high altitude; it would be equally wrong to exaggerate them. On the whole, full credit is due to all teams for the careful preparation and effort which provided a tournament of many outstanding games of football.

## OBSERVATIONS ON MATCHES OF THE WORLD CUP FINAL TOURNAMENT

Before the start of the 1966 World Cup competition in England, managers of competing teams expressed the view that the matches would confirm the growing trend towards defensive football and there would be a stronger emphasis on team fitness and hard tackling to win possession of the ball. In the event they were right in their prediction.

Later some of the managers expressed regret that the high stakes of competitive football throughout the world were compelling more use of defensive tactics and a restriction of attacking play, giving rise to many unattractive games.

The Technical Study Group in its report supported the opinion that the solution to the problems of defensive play lay in the hands of players and coaches, and that methods of attack should be developed to overcome the stifling effects of a seven to nine player defensive screen in front of goal.

In the last four years football in Western Europe has not seemed to change a great deal, though Eastern European countries have tried to use a 4-2-4 framework for basic patterns of play with at least four forwards moving into attack and USSR has attempted also to develop powerful long range shooting.

In South America, Brazil has continued with its 4-2-4 pattern and its liking for attacking football. Peru, too, produced a national team for the World Cup competition whose success was largely based on attacking play.

From the interviews with managers in Mexico before the World Cup final competition began, there was still some fear that, unless the referees were strong in their control, many games might be marred by rough play. Differences in habits of play and temperament were thought to be the most likely causes of upset. To the surprise of many experts, most games were played in a good spirit, and several of them produced a remarkable standard of attacking football.

Some among the European managers thought that the problems of altitude and heat had prevented teams from playing at full pace. The need to conserve energy for a series of matches caused them to adapt their tactics accordingly. Instead of tackling energetically, players backed away in defence, and, when in possession of the ball, they frequently used a 'stop-go' variety of play. Even substitution was used to give 'key' players a rest.

Club football inevitably has a strong influence on the development of a player's style of play, and the clubs are affected by the demands of their home competition. In Italy players generally subordinate their

individual abilities to club tactics, which are largely defensive in nature, since these tactics have proved to be more successful in terms of league positions and finance. With 50 or more club matches in a season it is scarcely possible for the coach of the national team to achieve a different style of team play within the space of a few weeks.

In Europe team tactics and their adaptation have become important features of performance. There is much 'running off the ball'—that is where players run continuously to find new positions when they are not in possession of the ball. Players try to create spaces to make it easier to pass the ball, and to draw the opposing defenders into false positions, and the gap which frequently appears on the flank is often exploited by defenders running forward into an advanced attacking position.

Spearhead forwards tend to be players who are quick and skilful, or else who possess outstanding athletic ability; above all, they are courageous in their determination to force their way past opposition and in their readiness to shoot at the slightest opportunity. Long through passes and high centres from the flanks are common techniques of play. Defenders in these teams are expert in covering each other, in interception, heading and tackling techniques, and in the use of controlled inter-passing out of defence. The best teams in Europe have freed themselves from rigid patterns of play. Players are capable of varying their functions between defence and attack; they adapt their play according to the strength and weaknesses of the opposing sides.

In South America players seem to acquire an additional dimension in standards of ball control and inter-passing skill. Speed of movement is characteristic of most forwards enabling them to evade tackles and to run quickly while controlling the ball. Inter-passing, both at short and long range, is very accurate. Midfield play can be quickly turned to attack. When South American players enjoy their football they seem to develop a quicker sense of anticipation of each other's intentions in a variety of inter-passing movements.

It was thought to be a fitting reflection of the comparable strength of football in South America and Europe that the semi-finals produced two teams from each continent. Brazil and Uruguay had made long and thorough preparation of their teams, whereas Germany FR and Italy arrived in Mexico after only a short get-together of players and with no altitude acclimatisation training or match play at high altitude.

Both Brazil and Uruguay assert that one of the chief factors underlying their success was the thorough and detailed training for physical fitness. Players performed at near the best of their ability and were unaffected by the altitude or heat. Germany FR and Italy shared the

feeling of several managers that the heat and the consequent loss of body moisture turned out to be a greater problem than altitude.

When the managers/coaches of the four semi-final teams met the Study Group in London in August 1970, with the World Cup behind them, they reported that, apart from essential changes of players for injury or substitution, they had attempted to keep the same team together for all matches. West Germany called upon 19 players, Italy used 18, Brazil 16 and Uruguay 15. A policy seemed to be accepted that it is essential to keep the same players because they become attuned to match play and combine together with more understanding as the competition proceeds. There is always a lingering doubt about the 'match fitness' of reserves who, once the competition starts, are prevented from having match practice outside the competition.

Looking back over the whole series of matches in the 1970 tournament in Mexico, the Study Group felt that five matches were unforgettable: Brazil-Italy, Brazil-Uruguay, Italy-Germany, Brazil-England and Germany-England.

## **Brazil**

Brazil were worthy winners of the 1970 World Cup tournament. Excepting only the game against England, which was narrowly won by the only goal, Brazil scored three or four goals in every match. Many of these goals were brilliantly achieved from clever approach play. The tally for six matches was 19 goals for Brazil and 8 against. It was said that the defence was vulnerable, but a team which throws its players into attack must at times weaken its defensive shield, and, in any case, there were several games in which the Brazilian defenders played extremely well.

Czechoslovakia, in the first match, made many scoring openings, but in the end they lost by the margin of 4-1, mainly due to the remarkable individual skill of the Brazilian forwards, who together formed a versatile and flexible striking force.

Much of the fine attacking play of Brazil is constructed on simple but deftly performed 'wall-passes' between two or more players, or on long and accurate lobs which are then skilfully and quickly controlled and passed on to a third player who is running into a shooting position. But each Brazilian player could also strike on his own.

Fast muscle is fundamental to shooting power. The surface area of contact with the ball and the speed of the foot at the moment of impact are the main ingredients of hard shooting. The Brazilians are

gifted with this quality of muscle, and, additionally, through long practice, have become skilful in placing and swerving shots.

Though the Czechoslovakian team started well, using good technical football, their rhythm slowed down as the game went on, and retreating defensive play became a doubtful tactic against Brazilian forwards renowned for their capacity for individual attack.

Brazil's second match, which was against England, was one of the outstanding games of the eight finals. Each team showed respect for the other. Throughout the game England defended resolutely and goalkeeper Banks made one amazing save from a Pele header. England were under severe pressure when Brazil scored the only goal. Tostao, after a weaving dribble, lobbed the ball over to Pele who, momentarily controlling it, drew two English defenders, including the left back, Cooper, and then coolly stroked the ball into the path of Jair, whose driving shot was unstoppable. From then on England continually attacked the Brazilian goal, and several long high centres put the goalkeeper and other defenders in difficulties, but unfortunately for England, two or three good chances to equalize were wasted. Inevitably there were some clashes in the general keenness to win possession of the ball, but, on the whole, play was fair and the game was controlled well by the referee.

Brazil's worst performance in the eighth finals was against Rumania. They started well, and scored twice in the first 20 minutes, but then they seemed to lose their grip on the game. Probably their teamwork was disturbed by changes in midfield due to the injury to Gerson. Rumania, however, never gave up, and full credit is due to them for this. They seemed to be determined to show that they were a force to be reckoned with, and in this they succeeded; in fact, but for inaccurate and sometimes unlucky shooting, they might have shaken Brazil far more than in the event they did.

In all games Brazil used a four man zone defence, working in line, with the two inner defenders covering each other. These four defenders used tactics to slow down opponents as they attacked, waiting for opportunities to intercept or tackle as the ball was inter-passed. Sometimes these tactics became confused against speedy attacks. The goalkeeper, Felix, looked insecure on occasions, but the defenders in front of him were the cause of some of his problems. The flank defenders occasionally overlapped by running forward into attacking positions down the touchline.

The quarter final against Peru was a match of continuous attacks at each end of the field. Peru had something of the Brazilian style of general play, but often their attacks were bunched in close inter-passing play on the front edge of the penalty area. Chances to squeeze the ball through a

packed defence by such tactics are lost by the slightest wrong touch or by an intercepting body or foot. Also, because play cannot, under these conditions, be opened up on the flanks, the opposing defence is able to concentrate its forces and blunt such attempts at penetration.

Peru dominated the game for 20 minutes at the end of the first half, and got on top again for a short period in the second half. Eventually, however, the Brazilian attack won the day against talented opponents. Jair was held on the right flank very effectively yet, towards the end of the game, when he shifted his position to the left flank, he was able to score.

The semi-final match at Guadalajara between Brazil and Uruguay produced some of the best football seen in any tournament. Uruguay opened without any fear of the reputation of Brazil and took command of the game early in the first half by imposing their own pace and rhythm of play. But again, they seemed to lack goal scoring forwards, and throughout this tournament they missed the injured Rocha sadly, and the first goal scored by Cubilla in the eighteenth minute was more the result of mistakes by the Brazilian defence than anything else. At this point Brazil took over and accelerated the pace of the game. Clodoaldo equalized in the last minute of the first half from a pass by Tostao which took the Uruguayan defenders by surprise. This gave Brazil a psychological uplift in their play and in the second half the team developed combinations of inter-passing which amazed even those experts who had seen many of the great Brazilian performances of the past. Some of the first-time-passing sequences in movements towards goal were truly remarkable. The second goal was scored in the seventy-sixth minute by Jair, and from then on Uruguay threw everything into attack, which exposed their defence all the more and made possible the Brazilian goal two minutes from time.

Mazurkiewicz, the Uruguayan goalkeeper is considered to be the equal of Banks, England's great goalkeeper, and he well justified that estimation of him in this tournament and this game. He is athletically daring in cutting off high centres and exceptionally accurate in throwing the ball to start a new attack from defence.

The flair for innovation when team performance is running high is well illustrated by two movements from Pele late in the game. First, he quickly turned to intercept a long throw from Mazurkiewicz some 40 yards down field, and, without attempting to control the ball, volleyed a low drive which brought a spectacular save from the goalkeeper. Then he chased after a loose pass with Mazurkiewicz running out of goal to intercept. Pele's feint took the goalkeeper to the left while the ball ran on, and then Pele veered round and, with a spin turn, placed a shot through the recovering full backs which narrowly missed the post. Both move-



ments were audaciously executed and called for immense skill, timing, judgment and speed.

The Uruguayans played extremely well, forcing the best out of every Brazilian player. Felix made a miraculous point blank save from Cubilla. Alberto, Brito, Piazza and Everaldo defended supremely well, though occasionally with desperation. Gerson and Clodoaldo wove patterns of astonishing intricacy in the middle of the field and cleverly prompted the spearhead forwards. Jair and Tostao produced flashes of spectacular dribbling and Rivelino used his extraordinary feint play of his left foot over the ball to great effect and threatened repeatedly with his powerful shooting power. But above all Brazil played well as a team to produce some wonderfully sustained football.

In the final match against Italy, Brazil had complete confidence in their tactical and technical superiority, and began to express themselves freely. Italy, on the other hand, seemed a little afraid to carry on with the highly motivated attacking play they had displayed in their brilliant encounter with Germany in the semi-final. They kept to their customary man-to-man marking in the final line of their defence, and as a result no one seemed to mark Gerson, and when Jair moved over to the left flank, followed by Facchetti, Carlos Alberto was unimpeded in making attacking approaches down the right wing. Throughout the game Gerson and Carlos Alberto were unmarked, which tactically contributed much to Italy's downfall.

For the first 15 minutes the Italian team held the Brazilian pressure and were somewhat unlucky not to score from two powerful long-distance shots by Riva and Domenghini. However, in the seventeenth minute, from a centre by Rivelino, Pele evaded his opponent and, with perfect timing, jumped high to head the ball powerfully downwards inside de post.

Italy equalized as a result of over-confident play by Clodoaldo allowing the ball to run loose to Boninsegna who, after a further mix-up between Felix, Brito and Riva, recovered to shoot the ball into an empty net.

In the sixty-fifth minute, Gerson, enjoying his freedom, scored a fine second goal with a long shot from the edge of the penalty area. Then a free kick from the same player was headed back across the goal by Pele for Jair to run in and score from close range.

From then on the Brazilians were in full cry and further success could not be denied them, and when the goal came it was the best of the match. Clodoaldo brilliantly beat five opponents in close space in mid-field, and pushed the ball ahead to Jair who had crossed over from the right flank. Jair cut inside Facchetti and passed to Pele, who non-

chalantly held the ball, and then feigned to make a break and so mesmerized three defenders, who moved to bar his way to goal. But instead he stroked the ball into the path of Carlos Alberto, who, running in at great speed on the right flank, hit a fast low shot across Albertosi into the far side of the net.

At the end of the game hordes of Brazilian supporters flooded onto the field to hail their heroes and proclaim their delirious pleasure not only for the feat of winning the trophy for the third time, but also for the manner in which it had been achieved. Though this demonstration delayed the presentation ceremony the interruption was accepted good humouredly by officials, who seemed to feel, with everyone who was present, that such an outburst was well justified and would, in any case, have been impossible to contain.

**PLAYERS TAKING PART IN BRAZIL'S SUCCESS WERE:**

ALBERTO (6 matches)	FELIX (6 matches)
JAIR (6 matches)	BRITO (6 matches)
	GODOALDO (6 matches)
	(Substitute: EDU 73 Minutes)
	TOSTAO (6 matches)
PIAZZA (6 matches)	EVERALDO (5 matches)
	(Substitute: MARTIN 56 minutes)
FONTANA (1 match)	MARTIN (1 match)
GERSON (4 matches)	RIVELINO (5 matches)
(Substituted twice:	
PAULO CEZAR 73 minutes and	
67 minutes)	
PELE (6 matches)	PAULO CEZAR (2 matches)

**Italy**

After two training matches in Toluca (2,680 metres), Italy picked its best team for the first match which was against Sweden. The exclusion of Rivera caused great controversy despite the fact that Mazzola, who had taken his place, played extremely well in this game. Sweden's tactical organisation was good, but individual technical skill was not sufficient to overcome the well-drilled man-to-man marking defensive system of the Italians supported by a very fine goalkeeper in Albertosi.

The single goal of the match was scored by Domenghini from 20 metres distance, and when they left the field, Italy could consider themselves fortunate winners; this was the first time in 58 years that Italy had defeated Sweden. The English referee, Taylor, controlled the game well, but he was twice unlucky in his application of the advantage

rule. In the second incident he blew instantaneously for a foul on Kindvall, the Swedish centre-forward, just outside the penalty area, but Kindvall managed to recover and retain the ball, and had, therefore, an excellent chance of scoring an equalizer denied him. The direct free kick which had to be awarded by the referee was easily cleared.

In the second match Italy played Uruguay, who had also won their first match against Israel. It was therefore important that neither team should lose this match, and this aim clearly decided the tactics of both teams. The resulting game obviously disappointed the spectators, for there were very few highlights, yet the discipline of the two sets of players in keeping to a set tactical plan was quite exceptional; both held tight defences, crowded the midfield with close inter-passing play and made no risky attacks.

After a win against Sweden and a tie against Uruguay, the Italian team required only one more point from their game against Israel to win Group 2 and qualify for the quarter finals. Yet if they lost against Israel, all four teams in the group would have ended up with equal points and the Italians might have been threatened with elimination. The humiliating defeat by North Korea in 1966 could not have been forgotten by the Italians and they must have felt extremely nervous about this last match. On the other hand, Israel, the outsiders in the group, had nothing to lose and everything to gain, and they played without signs of nervous stress. Israel began with self-confidence, showing good defence and attacking verve. Italy opened cautiously, and continued with a packed defence and crowded mid-field play, using only Riva and Boninsegna as spearhead attackers. Boninsegna is an inexhaustible fighter and Riva uses his explosive starts and powerful sprints to try to force his way past two or three defenders. He persists, and seizes every opening to shoot at goal. Valcareggi, the Italian manager, brought in Rivera as a substitute for Domenghini in the second half, but Mazzola was undoubtedly the best player in the Italian team in this match. A draw was deserved though both teams missed several chances.

Italy thus became the winners of Group 2 having scored only one goal in three matches.

The game against Mexico was a further test of the mettle of the Italians. Stimulated by 30,000 enthusiastic supporters at Toluca, the Mexico team started with vigorous attacking play. Using a basic 4-3-3 formation, they pressed on with continuous attacks and for the first 20 minutes their goalkeeper, Calderon, was never seriously challenged. In the twelfth minute Gonzalez scored for Mexico. However, the self-confidence of the star Italian players began to return and overcome the

obvious partisanship of the spectators. From the first few attempts to attack it was clear that the Mexican defence was unfirm. The equalizing goal by Domenghini was rather lucky in that it was deflected by a defender.

At half-time Mazzola was replaced by Rivera, a switch which determined the result of the match. Rivera took the strings of midfield approach play into a firm grasp, and his passes were so well-timed and accurately measured that play was completely transformed. Here was a clear illustration of how a single player by cool reading of the game can harmonize the play of other colleagues round him. Both goals by Riva were prepared by Rivera, and he himself scored one on his own. The Italian team had at last shown something of their extraordinary qualities as footballers.

The semi-final against Germany FR was a most exciting and dramatic game; it was not particularly outstanding in a technical or tactical sense, but it was full of drama, suspense and incident which highly engaged the emotion of the spectators.

The first half was marked by caution on both sides; both teams adopted man-to-man marking and used a cover centre-back behind the last line of defenders. Surprisingly, Italy scored the first goal when the ball fell to Boninsegna from a rebound on Schnellinger's chin. Surrounded as he was by defenders, Boninsegna's shot left the goalkeeper unsighted.

The Germans attacked more than Italy, but though Muller caused several moments of anxiety the Italian defence held out until half-time. Rivera again substituted in the second half for Mazzola, and Libuda came on in place of Lochr of Germany FR. The Germans got well on top, and several times the Italian defence almost capitulated; as the game went on, Italy seemed to grow more desperate. The equalizer from Schnellinger in injury time was as though written for a story book. A cross from Grabowski cleared all the Italian defenders and dropped into the six-yard area, with Schnellinger running in from deep. He made to volley with his left foot and, while in mid-air, pivoted to volley it into goal with the inside of his right foot.

The spectators may have felt that the last 20 minutes of the second half were excitingly tense and dramatic, but the next 30 minutes must have seemed almost unbelievable. Four minutes after the re-start, Seeler headed down to Muller, who beat the goalkeeper for the ball and put it over the goal line.

Four minutes later the dispirited Italians were cheered by Burgnich seizing on a defensive mistake by Held and volleying the ball past Maier, in the German goal. Five minutes later, Riva rounded Schnellinger to

drive past the advancing Maier to give Italy the lead once more. Then, immediately the teams turned round for the last 15 minutes, the Germans created havoc in the Italian defence, and Seeler headed from a corner for Muller to divert the ball into the Italian net—a piece of sheer opportunism. For the Germans it was a tragedy when Schultz lost a tackle on Boninsegna who running in towards goal, then pulled a back pass for Rivera to pick his spot, using the side of his foot, to score the winning goal. One could ask where the discipline of tactical defence was in either team, but the players were motivated to make every effort in attack in a game which, in the last stages, was never allowed to settle down to ordinary levels of football. It was a fantastic game by any standards!

### **Federal Republic of Germany**

On all counts, Germany's first match of the tournament against Morocco appeared to be a foregone conclusion. Yet everyone was surprised. Morocco made no pretence; they were going to defend at all costs. Three players were always close to Muller and even when Morocco were taking corners five defenders stayed upfield to keep a close eye on two German forwards.

In the first half Germany FR had the clear run of three-quarters of the field, but they did not strike a rhythm, and their over-long passes were inaccurate, allowing the Moroccans to obtain possession of the ball, and then hold the game in suspense with sequences of short inter-passing which the Germans did nothing to prevent. When Morocco scored their first goal Germany FR lost control of the game and, indeed, Morocco almost scored again. In the second half a good opportunist goal by Seeler brought fresh life to the German team, and then a second goal came from a fortunate rebound from the crossbar, but Germany had had a very disappointing game.

In their second match, which was against Bulgaria, Germany FR looked a different side altogether. The Bulgarians had made many changes, and started using a 4-2-4 formation with slow build-up in mid-field and long passes to the centre forward. Bulgaria scored the first goal from a set-piece free kick which was cleverly executed with an attacker running in behind the wall of defenders.

Germany FR equalized through Libuda, who played extremely well, helping Muller to the second goal, and then gaining a third for Germany when he was brought down inside the penalty area early in the second half. Muller scored from the spot. The spirit of the Bulgarians seemed to die with this third goal, and Seeler and Muller were able to add further goals.

The crucial match of this particular group in Leon was between Germany FR and Peru, which turned out to be an intriguing battle of intelligence between the good defensive play of Germany FR matched against the adventurous forward attack of Peru. The deciding factor was Peru's own weak defence, which allowed Muller great freedom, which he gratefully used by scoring a first half hat-trick. Any other team would have collapsed completely, but Peru kept at it and scored from a free kick just before half-time. With only 20 minutes left, the game changed dramatically and several times Peru went near to scoring. This was Peru playing at its best, but on the whole Germany FR deserved to win.

In the quarter finals Germany FR met England on a very hot day. Throughout the first half England dominated the play, every man working for the other and denying Germany FR even a glimpse of goal. England used a basic 4-4-2 formation and the Germans attempted to mark man-to-man, with Schnellinger covering freely behind the defence. This meant that the German defenders were pulled all over the place and the English full-backs were able to make repeated runs down the flanks where there was ample free space. The first goal to England came from a cross by Newton, the full-back, to Mullery, who scored. Soon after half-time a second goal came from a similar run by Newton on the right flank and Peters scored from the cross.

England then began to play the ball around in a negative but energy-conserving fashion in midfield—one sequence carried at least 18 passes. Finally a short pass was intercepted and Beckenbauer went through to score with a quick low shot past Bonetti's diving body. England were stunned, but might have scored a third time from a Hurst header which scraped the far post. Germany FR then took control of the game and, through a back header from Seeler, which he was lucky enough to drop under the bar with Bonetti stranded, Germany FR were undoubtedly fighting to come back and win. Ironically, here were the same two teams again facing extra time as in the World Cup final in London.

Grabowski had been substituted for Libuda in the second half and Bell was put on for Charlton after Germany FR's first goal. In the twentieth minute Hunter was sent on for Peters, and at this stage Newton seemed to be injured. Later he failed to cut out a cross from Grabowski which Loehr headed back across the goal for Muller to make the winning score. From their first goal Germany FR had gone from strength to strength, whereas England seemed to be dispirited by goals which they felt came from defensive errors. Pulling back a two-goal lead in such fashion and then winning in extra time after a gruelling game was indeed a remarkable achievement for the German team.

## Uruguay

The match for third and fourth places in the World Cup final competition seldom produces a great game. Maybe this is because it does not assume anything of the importance of the final, but in this case Uruguay and Germany FR were somewhat spent in body and spirit after their respective tremendous efforts in the semi-finals.

Germany made changes, putting in Wolter for Maier as goalkeeper, and Weber for the injured Beckenbauer. The pace of the game was slow, but the German team did its best and in this display Overath proved that he is one of the greatest midfield players in the world. The Uruguayan team were unlucky at least not to have shared honours with Germany FR for they had five times as many goal chances.

In all Uruguay scored four goals in six matches, and two of these were against Israel, a clear reflection on their limited goal scoring ability. In the second half of this game they dominated play and, though the West German defence was at times desperately stretched, it managed to hold out. When all else failed, young Ancheta, one of the world's best defenders, went up into the Uruguayan attack, and Wolter had to make a wonderful save from his strong header. The single goal, by West Germany, was typical of their now basic approach play—a cross from Libuda, which Seeler headed to Muller, who then passed backwards into the path of Overath for him to shoot past Mazurkiewicz.

Uruguay have individual ball control on a par in technical skill and expression with that of other South American countries. They are masters of slow bunched play in midfield and one wonders what greatness they could attain if they worked at the rate of European teams and were more precise in their shooting.

**El Salvador, Morocco and Israel** were thought to be out of their class in the final of such a competition, but credit must be given to them for their performances. Though El Salvador were soundly beaten in their matches, they were not the easy victims one expected. Morocco also might have made the biggest impact in the final series of matches when they played Germany FR, and Israel are justifiably proud of the matches drawn against Sweden and Italy. Sweden must have been bitterly disappointed, for, after losing narrowly to Italy and drawing with Israel, they had to win by at least two goals against Uruguay to qualify. Though they won this crucial match it was by a single goal, scored in the last moments of the game, which was not enough.

**USSR**, too, could feel rankled by failing in the quarter finals. They had emerged from a difficult inaugural match against the host country and went on to take the first place in Group 1. The win against

Belgium was their best performance when they revealed tremendous shooting power. The quarter final against Uruguay was spoiled by a series of fouls, including dangerous tackles, player holding and tripping. USSR had only themselves to blame for not taking the lead, particularly in the first half when Khmelnski missed on open goal. Laurens Van Ravens kept the game under tight control, but the Uruguayan goal by Esparrago was contested by the USSR players who clearly thought that the ball had already gone out of play over the goal-line before it was centred to Esparrago.

**Mexico**, the host country, had prepared its team with the same thoroughness they had given to the organization of the tournament. In trying to fulfil the hopes of the Mexican people, the pressure on the players could be assessed from the nights of ecstatic jubilation and chanting demonstration seen in the streets of Mexico City following each Mexican success. Mexico played well enough to reach the quarter finals for the first time in their history but then had to concede to the greater experience and talent of Italy.

The opening game, played before a crowd which exceeded the official capacity of the stadium which was given as 107,000, on a day of bright sunshine, saw the Mexican style of play, using a flexible 4-3-3 formation in which the defence was resolute and quick in the tackle, although occasionally it looked anxious and rather desperate. When in possession there was a slow build up in the middle of the field, then a quick break away, then slow interpassing again. There was no attempt at continuous attack, perhaps out of respect for the capabilities of the USSR team. As the game went on it became more of a stalemate, shown by the fact that there were only four good shots at goal in the whole game.

To be certain of qualifying, Mexico had to win against Belgium. Both teams used a six man defensive screen, but whereas Belgium seldom attacked with more than three forwards, Mexico often used four, five and six players. In this respect Mexico deserved to win, for, though the Belgian players have strength and stamina, they did not show the spirit to develop these qualities to the degree that they usually do. They had only two good chances to score. Mexico had few more. Many shots were hopefully made from 25 to 30 metres. Unfortunately the penalty from which the winning goal was scored by the Mexican captain Pena was hotly disputed by the Belgian team. Once again the Mexican team were inclined to pass square and backwards when there were chances of a forward through pass. Seldom did they use the long ball in attack. Towards the end of the game play deteriorated as the Mexican team became anxious to hold on to their slender lead and win the game. Mexico and USSR gained five points



each in their group, and leadership of the group was decided by a drawing of lots, which fell to USSR, and Mexico had to travel to play in Toluca for the quarter final where they were defeated by Italy.

## TRAINING PLAN OF THE BRAZILIAN TEAM

### Objective of the plan

To define in general terms the directives for the physical, technical and tactical training and psychological preparation of the Brazilian football team chosen to play for the Jules Rimet in Mexico during June, 1970.

### Training aims

*Time available*—from February 12, when the players are called together, the period of time available for training will be up to the eve of the first match which will begin on June 3. Thus we can count on 19 weeks work; the last four of which are taken up by the actual competition. The sole aim of all training will be to bring the players to their absolute peak during the fifteenth week of work.

### *Periods of Training:*

Period	Locality	Objectives
First week	Rio de Janeiro	Players report Medical checks Physical aptitude tests Commencement of Training Training Camp
Second to Sixth week	Rio de Janeiro	Basic Conditioning (Sessions of long and medium intensity)
Seventh to Eighth week	Rio de Janeiro Brasilia—Manaus Bogotá—Guadalajara	Preparation Trip to Mexico (with stop) Settling in
Ninth to Twelfth week	Guadalajara	Adaptation to altitude

		(First step—1,680 m) Period of conditioning (First phase) shorter and more intense sessions
Sixteenth to Nineteenth week	Guadalajara—Mexico	Competition period Moderated sessions to maintain condition and recreation

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### *General Timetable:*

#### **Daily and weekly schedules**

Taking the general as a basis plan, a detailed weekly schedule will be established within which activities will be meticulously planned to conform whenever possible to the general scheme, but in such a way that adjustment can be made to suit conditions which may momentarily arise and to fit in with necessary requirements in connection with journeys, matches, medical or administration problems, bad weather, etc.

These detailed schedules are to be submitted to the President of the Technical Commission at least a week in advance.

#### **Timing and rota of training sessions**

In principal, training will be divided into two sessions daily, each one consisting of two hours.

In the morning training will be technical, with ball work, as the nervous system will be duly rested after a night's sleep, the players will more easily assimilate the work, which aims to establish and perfect the reflexes and neuro-motor coordination.

In the afternoon, when the system has been more nourished, and thereby has greater reserves of energy the players will adjust better to physical exertion.

As regards intensity, the 'three day cycle' will be operated when hard, medium and moderate sessions alternate successively. Duration and intensity will also be varied. This will facilitate assimilation, according to experimental tests carried out by the Russian Ozolin.

## **Adaptation to the conditions of the place of competition**

### *Altitude adaptation*

Acclimatisation will take place by degrees, an initial period of four weeks in Guadalajara (1,680 metres), and a period of three weeks at Guanajuato (2,050 metres), so that adaptation may be attained in case we reach the finals in Mexico City (2,240 metres). It must be emphasized that the physiological adaptation acquired will be maintained for 20 to 30 days, and we will thus attain our objective. Furthermore upon returning to Guadalajara the team should be in excellent physical condition as this has been acquired at a high altitude.

The training sessions at altitude will be adapted as necessary to the conditions, especially as regards recuperation periods which will be increased.

### *Adaptation of the biological rhythm*

As Mexico has a four hour time differential from the Western region of Brazil, a pre-arrival adaptation will be required for the body to acclimatize to Mexican conditions. This will be obtained by a gradual and progressive retarding of the players meal times and bed times until the time differential has been overcome.

### *Adaptation to sun radiation and heat*

There should be no problem for our players to adapt to the sun and the Mexican summer. The same cannot be said however, of our European opponents, coming from a temperate climate.

## **Physical preparation**

### *Objectives of physical preparation*

The objective being the greatest possible development of the basic and specific physical qualities of the players, this is a most important component in the context of general training of the team; the main aspects are:

- (a) Organic Preparation—To include those sessions which aim to improve the heart, circulatory and respiratory systems of the players, increasing the capacity to absorb and transport the necessary oxygen to the muscles during long periods of physical exertion (aerobic). Efforts will also be made to increase the resistance to working without oxygen (anaerobic) by increasing the reserves of alcali of the players.

(b) Neuro-muscular preparation—A series of exercises destined to perfect speed of the players, to increase potential and the localized strength of groups of muscles to increase flexibility and mobility of articulation and coordination of movements.

*Methods to be used in Physical Training*

Objective	Physical Qualities	Methods to be used
Bodily Training	Endurance	Long Distance
	Stamina	(Cooper Scale) Interval Training Time Training Circuit Training Sessions of Tactical and Technical Training (TRN)
Neuro-Muscular Preparation	Strength	Circuit Training
	Energy	Speed Work
	Muscular Stamina	Periods of:
	Flexibility	Natural Gymnastics
	Coordination	Acrobatic Gymnastics Medicine-ball Elastic Rope Sessions of Tactical and Technical Training (TRN)
Recreation Activities		Team Games
		Walks
		Cycling
		Swimming

**NOTES**

1. In previous tests on the Brazil team the excellent muscular formations of the players was noted. Thus weight-lifting will not be included for muscular preparation, especially because of the time factor resulting in the player finding difficulty in adapting his new-found strength. However in exceptional cases of recuperation or compensation work with weights could be employed.

2. As the competition is to be held at an altitude higher than ours, where oxygen is present at partially reduced pressure, special emphasis will be given to the bodily training of the players, as there is no doubt that their better adaptation to altitude will depend on their physical preparation.
3. So that the different types of training can be learned more quickly and efficiently, the showing of films and slides of the different exercises has been organized. This will facilitate their correct execution by the players in the shortest possible time, in accordance with the advanced teaching methods.

*The basic principles of physical training*

Only the most modern physical training methods will be used:

- (a) Biological individuality—No two individuals are exactly alike therefore these will be adapted to individual assimilation and capacity.
- (b) Principle of overloading—The body will only develop if it is subjected to a strain (load) greater than that to which it is accustomed—otherwise the physical condition remains static.
- (c) Stress Theory—The body does not react to weak stimulation but if it is too strong it will be harmful. The range of stimulation should be worked out individually.

*Tests of Physical Aptitude*

An evaluation of the initial conditions will be made from the tests of physical aptitude, which afford the trainers a speedy method of measuring the average state of development of the physical qualities of their athletes allowing them to discover the weak and strong points and to establish the individual commitments.

The ranges of tests to be used are as follows:

Test	Execution	Verification
1—Cooper Test	12 minutes Run	Endurance
2—Speed Tests	50 metre Sprint with launched start	Speed of alteration of position
3—Circuit Training	Arm, leg and abdominal exercises. 'Burpee Test'	Strength Localized muscular strength Stamina

4—Flexibility Test	Leg side, front and back stretching. Spinal flexing	Muscular flexibility Ease of articulation
5—Lartigue Test	Pulse at rest after 30 leg bends	General bodily condition Acclimatisation

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### *Progress and Register of Training*

During training, tests will be repeated periodically, each result will be compared to the previous ones, thus providing an evaluation of the work carried out. Trainers can then be guided on the load to be used and can also have advance warning of overtraining or fatigue, which would call for modification in the plan or even its temporary suspension. Thus individual and group records are to be maintained up-to-date, on cards whose information is confidential and can only be accessible to the members of the Technical Commission or the trainers.

### **Technical preparation**

#### *Objective of the technical preparations*

Technical preparations will include ball practice which will allow the players to perfect the execution of the fundamentals (basic movements) of football with the maximum efficiency and precision and with the minimum of effort and will also permit the initial tactical development of a collective sense, essential to modern football.

#### *Methods to be used*

Basically the sessions will consist of continual repetitions in the most varied conditions possible (individually—in groups, six a side games, etc.) of all the fundamentals of football (passing, shooting, ball control, free kicks, tackling, saves, etc.) with special emphasis on those relating to the position of each player. It must also be mentioned the marked contribution made by these exercises to the physical training as they all require considerable physical movement.

## *Resume of technical training*

<b>Disposition</b>	<b>Full Backs Forwards</b>	<b>Mid Field</b>	<b>Goalkeepers</b>
Single	Ball control and ball domination Carrying the ball Body movements		Flexibility Handling Throwing out Clearing by hand and feet Goal kicks
Two or Three	Passing (ground; high, etc.) short and long Dribbling Tackling Sliding tackle Heading Wall passes		Saving (short, long and medium range, low, medium and high shots) Turning the ball Handling Throwing out
Groups	Shooting—dead and moving ball Centres, corners, headers. Flaying on and off the ball Long distance passes Free kicks direct at goal Forward and defensive organisation schemes (to a plan)		General training of saving in goal Coming out of goal (high, low and medium corner) Formation of the walls Returning ball with hand and feet Positioning
Reduced team practice (organized in accordance with the tactical plan)	Three vs Two, Four vs Three Two vs One, etc. Forward vs Defence; Marking and covering (schemes) offensive scheme; field Placings		Putting the ball into play with feet and hands Organizing the defence

### **Tactical preparation**

As this is the complement to, and culmination of, the physical and technical aspect which results in the best use being made of the individual characteristics of each player, the tactical training will harmonize, each within a whole, as called for in the modern approach to the game.

It will be managed by the Tactical Manager (Zagallo), whose responsibility it will be to establish the system of collective action of the team,

by means, not only of team training, but also by playing games with reduced teams (six a side, etc.), explanatory talks, and films about the tactics to be employed.

### **Psychological preparation**

The psychological reaction of the players will depend on various factors, among which are the good physical technical and tactical condition of the team, the atmosphere in the training camp, relations between players, managers, trainers and directors. It will depend on adequate and healthy recreation at free time and on the personal home and social circumstances of each player.

Considering that, managers, trainers, and players are all experienced and counting on the support of an efficient administration it would appear likely that the psychological condition of the team will be the best possible to cope with both with training imposed and the competition proper.

### **Administrative questions**

- Places of training.
- Equipment necessary.
- Trips, tours, etc.
- Training camps.
- Any other items.

### **Medical control**

As provided for in the report from the Medical Department.

The Training Commission

*Rio de Janeiro, GB  
February 12, 1970.*