

T.D. 3/90  
Decision rendered on February 28, 1990

THE CANADIAN HUMAN RIGHTS ACT  
R.S.C. 1985, c. H-6, as amended

HUMAN RIGHTS TRIBUNAL

BETWEEN:

JAMES EDE  
Complainant

- and -

CANADIAN ARMED FORCES  
Respondent

- and -

CANADIAN HUMAN RIGHTS COMMISSION  
Commission

DECISION

BEFORE: Daniel Soberman  
Gary Cheeseman  
Anthony Gazzard

APPEARANCES: Rene Duval Counsel for the  
Canadian Human Rights  
Commission

Peter C. Engelmann,  
and Major Gouin Counsel for the Canadian  
Armed Forces

DATES AND PLACES

OF HEARINGS: Toronto, Ontario, April 26 - 28, 1989  
Ottawa, Ontario, July 17 - 18, 1989.

## THE COMPLAINT

Mr. James Ede, the complainant, was denied entry to the Canadian Armed Forces because he was shorter than the minimum height standard of the Forces. He claims that this denial was contrary to the Canadian Human Rights Act because it was a discriminatory practice. S. 7(a) of the Act states:

It is a discriminatory practice...to refuse to employ...  
any individual...on a prohibited ground of discrimination.  
S. 3 states that "disability...[and other grounds] are  
prohibited grounds of discrimination."

The two issues for this tribunal are whether his shortness amounted to a disability under s. 3, thus giving the tribunal jurisdiction to consider the complaint, and if it was such a disability, whether the Armed Forces can justify the minimum height standard as a bona fide occupational requirement (a "BFOR") under s. 15(a) of the Act.

## THE FACTS

Mr. James Ede suffered as a child from a disease known as the Morquio-Brails Ford syndrome, resulting in spondylo-epiphyseal dysplasia. The disease affects bone development and body joints, and as a consequence Mr. Ede is much below average height: as an adult he reached a full height of just under 143 cm. (4 ft., 7.75 in.). The particular syndrome appears to run in Mr. Ede's family; he has an older and a younger sister, both of whom are shorter than he is. The medical evidence and Mr. Ede's own testimony suggest that he is active and in very good health.

In early May 1983, when he was 23 years old, Mr. Ede decided to pursue a career in the Canadian Armed Forces. He hoped it would lead to training in a trade that would be useful in a civilian occupation upon leaving the Armed Forces. At the time, the minimum height standard for enlisting was 158 cm. (5 ft., 2.2 in.). Hence, Mr. Ede was 15 cm. below that standard. (1)

Unfortunately, six years passed between the time of the complainant's application to the Armed Forces in 1983 and the hearing in this matter in 1989. The written records are not sufficiently detailed and the witnesses were uncertain of the exact dates of subsequent events. However, despite the lack of precision, we were able to glean the salient facts from the evidence presented.

On May 6, 1983, Mr. Ede visited the Canadian Armed Forces recruiting centre in St. Catharines, Ontario, and applied to enter the Armed Forces. He was given brochures to read and instructed to return May 9, 1983, to write a test. The evidence before the tribunal is unclear as to whether Mr. Ede was informed at the time that his height was a problem. On balance, it appears that there was no mention of the matter when he made his visits to the centre. He did sufficiently well on the test to be asked to return on May 11, 1983, for a medical examination.

(1) The Armed Forces subsequently reduced the minimum height requirement to 152 cm., 9 cm. taller than Mr. Ede's height.

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Mr. Ede was interested in becoming a photographer or a mechanic. Photography was perhaps his higher choice but he had some experience working on cars in a scrapyard. Aptitude tests taken at the recruiting centre were interpreted to suggest that "vehicle technician" (mechanic) was the appropriate trade for him; he was content with the prospect of learning that trade.

On May 11, 1983, a "Report of Physical Examination (for enrolment)" was filled in and signed by Mr. Ede, and apparently completed by Dr. J.R. Brook of St. Catharines. The report form asks about and lists a number of diseases and physical disabilities, and then asks the applicant whether he or she has "suffered from any illnesses or injuries not listed above?" To all of these questions but one (not relevant to the complaint) the replies were in the negative. It appears that this part of the form was filled in by the applicant although the form states it is to be completed by the examining physician.

When asked by counsel for the Commission why he did not state that he had suffered from the Morquio-Brails Ford syndrome, Mr. Ede replied, "It never crossed my mind. I figured the question meant like asthma..." He later said that "I never considered it a disease." The form was completed by Dr. Brook or an associate, (signature unclear), and states:

Unfit, under height standard  
15 cm. Otherwise is muscular and fit.

On the basis of this report -- none other was presented in evidence -- Mr. Ede was informed by a letter of May 20 1983, that he did not meet the height requirement and his application was rejected.

On July 25, 1983, Mr. Ede complained in writing about the height requirement to the then Minister of National Defence. He received a reply dated August 24, 1983, stating that the minimum height requirement was a "bona fide occupational requirement" of the Canadian Armed Forces. Mr. Ede continued to pursue the matter and ultimately signed a complaint form under the Canadian Human Rights Act on July 11, 1984. There followed at least two further

medical examinations of Mr. Ede, one by Dr. Brook and another by an orthopedic surgeon in Niagara Falls, Dr. C.M. Offierski. Internal memoranda from physicians within the Armed Forces in the fall of 1984 and winter of 1985, suggest that Mr. Ede was otherwise physically and mentally suitable, but was rejected on the basis of height. In fact, some state that he was vigorous and athletic. In particular, Dr. Offierski, in his letter of January 14, 1985 to Dr. Brook states:

... I could find no reasons on physical or radiographic examination to state that he would not be able to carry out his requirements of the Armed Forces. He is short of stature and does have some abnormality of the joints, but on today's examination, there is no evidence of any degenerative process... However, over the long term, the joints are abnormal and they are more prone to degenerative process than the average population. However, I do not feel that any activity he undertakes in the next 10 to 20 years is going

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to significantly alter the ultimate course with regards to his musculo-skeletal system. Therefore, aside from his short stature, I could see no reasons from an orthopedic point of view why this gentlemen would not be able to pursue a career in the Armed Forces.

Despite the above opinion of Dr. Offierski, Dr. Brook in a letter to the Canadian Armed Force, dated January 30, 1985, wrote as follows:

I note in Dr. Offierski [sic] report of 18th of November 1982 in the final paragraph he states Mr. Ede has extensive degenerative changes in his posterior facets and that he suspects Mr. Ede may develop a spinal stenosis syndrome, where as in his report dated 14th of January 1985, he considers the degenerative changes mild.

Mr. Ede's present condition is functionally sound. I consider he would be able to perform military duties at this time. His sporting activities suggest he would be able to mount a truck and cross an obstacle course, but natural history of his condition is such that I would consider it would not be in the best interest of the forces to accept,

nor indeed in his best interest, and I would recommend his rejection under CFP154 35 a (1) "subacute arthritis".

Dr. Offierski's report of November 18, 1984, referred to in the above letter, was not placed in evidence before us. No further evidence was introduced to explain the differing opinions of Dr. Brook and of the specialist, Dr. Offierski, and the reasons are not apparent to lay people. The significance of Mr. Ede's being rejected solely on the basis of height and being rejected as well for medical reasons, will be discussed below.

## THE ISSUE OF JURISDICTION

Counsel for the respondent Armed Forces argued a preliminary point, that mere shortness was not a disability within the definition of s. 25 of the Act, which states that:

"disability" means any previous or existing mental or physical disability and includes disfigurement and previous or existing dependence on alcohol or a drug.

His submission was that:

(a) the requirement of 158 cm. minimum height -- a matter of carefully considered Armed Forces policy set out within the regulations -- does not fall within any of the prohibited grounds of s. 3, and particularly not within the meaning of disability as defined in s. 25;

(b) accordingly, the requirement is not a prohibited ground of discrimination within the Act; and

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(c) Mr. Ede, who was medically sound, was rejected solely on the basis of the height requirement.

Therefore, it is argued that by definition shortness is not a basis for a complaint, and this tribunal has no jurisdiction to consider Mr. Ede's case.

We find that there are three grounds on which to reject the argument put forward. First, the basis of the argument is that the s. 25 definition of disability limits its application to medical or health problems of an individual and not merely to a physical characteristic such as height.

Even if we were to accept this interpretation of the s. 25 definition, we find as a question of fact that the Armed Forces perceived Mr. Ede's condition as being at least partly a medical condition or disability. We note that the simple task of measuring a person's height could easily be accomplished at a recruiting centre, certainly for clear cases such as Mr. Ede, who was not close to the minimum figure. Despite this observation, the Armed Forces ask applicants first to complete application forms and then to write tests. Only after success in writing a test is an applicant measured during a medical examination. To a reasonable bystander, this practice of deferring the question of height to a medical officer suggests that it is considered by the Armed Forces to be to some degree a medical matter. More importantly, Dr. Brook's letter of January 30, 1985, states that Mr. Ede's medical condition is a significant negative factor to be considered, at the very least, among other factors.

Accordingly, we find that the perception of the Canadian Armed Forces was that Mr. Ede had a disability within the meaning of s. 25. It has been established that a perceived disability is sufficient to bring discrimination within the prohibited grounds. Any other result would be contrary to the purposes of the Act: if an employer refused to hire a person, let us say, because she was perceived to be married, thereby discriminating on the basis of marital status contrary to the Act, it could hardly be a valid defence to assert that in fact she was not married. (2)

Second, regardless of his later good health, Mr. Ede did at one time suffer from a medical condition known as the Morquio-Brails Ford syndrome which led to his being of short stature. The s. 25 definition refers to "any previous... disability". And this previous medical condition or disability led indirectly to the discrimination against him. Therefore, on the basis of Mr. Ede's medical history, his complaint falls within the prohibited grounds of discrimination.

It might be argued that this second ground is a weak one: a person who simply was very short, with no known earlier medical condition, would not fall within the definition of s. 25, and thus would be unable to succeed in a claim based on disability; to allow Mr. Ede to proceed simply because of the earlier illness

(2) This principle is so self evident that there is little discussion of it in recent cases. In *Foucault v. CNR* (1981), 2 C.H.R.R. D/475 at D/477, the Tribunal stated:

It is the CNR's perception of physical handicap and their refusal to employ him that is grounds for discrimination.

In *Brideau v. Air Canada* (1983), 4 C.H.R.R. D/1314 at D/1316, the Tribunal stated:

In *Foucault* it was decided that what matters is not the physical handicap but the "perception" the employer has of the future employee's physical condition. In the instant case the complainant, Mr. Valère Brideau, was "perceived" by Air Canada as having air bubbles on his lungs, and therefore as having a physical handicap, though the condition did not exist.

And at D/1317:

...it is the "perception" an employer has of the future employee's physical condition that must be considered, not the physical handicap itself.

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creates an inequitable and unfair distinction between Mr. Ede and such a person. It seems to us that this argument would not be a reason to deny Mr. Ede an opportunity to press his claim on its merits, but rather it leads to our third ground: it is a reason not to deny a similar opportunity to the short person with no known medical ailment.

We believe that a broader interpretation of disability -- to include any physical characteristic utilized to reject an individual -- finds support in the definition in s. 25. The section says "disability" means any...physical disability". In our view, shortness is a physical disability if the Armed Forces states that it disables a person from joining; the disability need not be the result of an illness. To come to any other conclusion would defy logic and common sense: the Armed Forces (and any other employer subject to the Act) could select any criterion, indeed an unreasonable one such as rejecting all people with red hair, that



fell outside the enumerated prohibited grounds and yet was not based on a bona fide occupational requirement under s. 15(a); with impunity they could deny an employment opportunity to any person based on that criterion.

To interpret "disability" so narrowly would be contrary to the broad purpose of the Canadian Human Rights Act. S. 2 of the Act states that purpose to be:

to give effect... to the principle that every individual should have equal opportunity ... to make for himself or herself the life that he or she is able and wishes to have...

While it then goes on to enumerate discriminatory practices -- "race, national or ethnic origin, colour, religion, age, sex, marital status, family status, disability or conviction for an offence for which a pardon has been granted" -- these terms must be broadly interpreted in the context of the Act's purpose as well as its other terms. Support for a broad interpretation is found in s. 15, which states that:

It is not a discriminatory practice if

(a) any...specification...in relation to employment is established by an employer to be based on a bona fide occupational requirement;

...

(e) an individual is discriminated against on a prohibited ground of discrimination in a manner prescribed by guidelines, issued by the Canadian Human Rights Commission pursuant to subsection 27(2), to be reasonable; [underlining ours]

It follows that any act of discrimination, found not to be reasonable in light of the exceptions in s. 15, and in particular of the two subsections reproduced above, should give a remedy to the victim of the discrimination.

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Such an interpretation is consistent with s. 15 of the Canadian Charter of Rights and Freedoms. S. 15 of the Charter grants every individual "the equal protection and equal benefit of the law without discrimination". While the facts of the complaint before us arose in 1983, before s. 15 came into force, it should be noted

that the Canadian Human Rights Act has been amended since April 17, 1985, when s. 15 of the Charter came into force. The three-year delay from April 17, 1982 to April 17, 1985, in the application of s. 15 was expressly designed to permit Canadian legislatures to review and amend existing legislation so that it would comply with s. 15 of the Charter. However, those sections of the Act to which we have referred have not been amended. The inference to be drawn from Parliament not amending them is that they were considered already to be consistent with the Charter.

On this basis of consistency with the Charter, the right to the equal benefit of the law reinforces an interpretation of disability that prohibits the Armed Forces from relying on a prima facie unreasonable criterion, such as a minimum height requirement, unless it can be justified as a bona fide occupational requirement under s. 15(a) of the Act. We so hold. Accordingly, we must now turn to the second ground raised by the respondent in this complaint, that the minimum height requirement for admission to the Canadian Armed Forces of 152 cm. does meet the test of bona fides under s. 15(a).

#### THE DEFENCE OF BONA FIDE OCCUPATIONAL REQUIREMENT

The Armed Forces submit that the height standard is a BFOR because any applicant who failed to meet the standard would in many circumstances be inefficient as a soldier and a danger to himself and others. With respect to the complainant, it is argued, there are two distinct applications of the BFOR principle.

##### Basic Equipment

First, there is the general concern related to basic training required of all recruits of the Forces and the clothing and equipment that they must use:

- a) The smallest available sizes in combat clothing in Canada (and in all NATO countries) are barely acceptable for the shortest recruits at 152 cm. At 143 cm., the height of the complainant, the garments would create unacceptable risks. In particular, the clothing designed to protect against chemical warfare and radiation would, in the sizes available, severely restrict body movement. When worn by so small a person there would be increased danger of leaks, exposing the wearer to lethal substances.

- b) The standard one-size backpack with frame that soldiers are required to carry may contain as much as 40 to 50 kilos of supplies and equipment. The frame is designed to sit on the hips as the primary support for the heavy burden. On a person as short as Mr. Ede, the frame would slip below the hips and the main burden would be carried on the shoulders. As a result, the backpack would be too tiring and unstable to be sustained for a long march: it would not be feasible for so short a person to carry a backpack for the marching distances required of all recruits during training.
- c) The current "FD-CN1 A 1" army rifle is supplied with four lengths of butt -- short, regular, long and extra long. Every recruit is outfitted with a rifle and butt according to his or her height and arm length, and is required to learn to fire the weapon competently. Even when the Fd-CN1 A 1 is fitted with the short butt, a recruit as short as the complainant could not fire it safely and efficiently.

The respondent introduced much detailed evidence about other non-combat clothing, but the above summary represents the essential argument about combat readiness, efficiency and safety.

#### Land Vehicles

Second, Mr. Ede had an aptitude for, and an interest in, becoming a vehicle technician (motor mechanic). Indeed, it seemed to be agreed that this vocation would be the preferred one for him, and would form the basis for his admission into the Armed Forces. The Forces require all vehicle technicians to be trained to drive the vehicles they repair and maintain. Their concern is that:

- d) Almost all of the land vehicles currently in use by the Armed Forces could not safely accommodate a driver as short as Mr. Ede. That is, he could not be seated low enough within the vehicle to reach the pedals and at the same time have adequate vision over its front and sides. In some vehicles, such as an armoured personnel carrier, the driver's position would be unsafe: the body position would be too low to deflect bumps from abrupt vehicle movements with one's shoulders so that a very short driver would be likely to receive facial injuries while driving over rough terrain.

The above four points constitute the essential submission of the Canadian Armed Forces in asserting that the height requirement is a BFOR.

#### THE COMPLAINANT'S SUBMISSION IN REPLY

The parties are agreed that the minimum height restriction was, in the words of McIntyre, J.:

...imposed honestly, in good faith, and in the sincerely held belief that such limitation is imposed in the

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interests of the adequate performance of the work involved with all reasonable dispatch, safety and economy...

However, the complainant submits that the restriction does not meet the second part of the test in the Etobicoke case, namely that:

It must be related in an objective sense to the performance of the employment concerned, in that it is reasonably necessary to assure the efficient and economic performance of the job without endangering the employee, his fellow employees and the general public. [emphasis added]

This two-part test for the validity of a BFOR, as stated in Etobicoke, was based on the Ontario Human Rights Code. The Supreme Court of Canada has held that it also applies to the Canadian Human Rights Act.

With respect to the second part of the test, counsel for the Commission makes three arguments against the submission of the respondent.

That the Height Standard is Unnecessary and Thus Unreasonable

First, it is argued that even if the inefficiencies and dangers claimed by the Armed Forces to exist for a very short person were real, they would not support a BFOR for the following reason: the respondents did not claim that Mr. Ede's shortness would interfere with his work directly on vehicles; accordingly, if the Armed Forces excused him from the duties that require the

use of the equipment and vehicles described above, he could still perform in a satisfactory manner as a vehicle technician; he could do so without causing any serious disruption within the Armed Forces. In other words, a reallocation of tasks among members of the Forces would solve the problem. Mr. Ede could work as a competent mechanic without ever wearing combat clothing and backpacks and firing a rifle, and without driving vehicles.

That the Risks for A Very Short Person have not been Demonstrated

Second, it is submitted that even if it is a reasonable requirement that all members of the Forces wear the normal equipment to successfully complete basic training, and that vehicle technicians be able to drive all the vehicles they work on, it has not been sufficiently demonstrated by the evidence that a person 143 cm. in height could not do all these things.

That the Impracticality of Modifying Equipment and Vehicles has not been Demonstrated

Third, if a short person could not perform these tasks successfully with the equipment and vehicles currently available, it has not been demonstrated that changes to accommodate Mr. Ede could not be made at reasonable cost.

## IS THE MINIMUM HEIGHT STANDARD UNREASONABLE?

The first argument by the complainant raises the issue of the extent to which a tribunal such as ours is in a position, on questions of national defence, to substitute for the established policies of the Armed Forces, its own judgment of what is proper and necessary for them to carry out their responsibilities. The Forces are not immune to the standards of the Canadian Human Rights Act; otherwise they could disregard it with impunity even in cases of egregious discrimination. In our view, they are required to establish a reasonable basis for the minimum height standard as a bona fide occupational requirement, to the satisfaction of this tribunal. If the minimum height standard is, in the words of McIntyre, J., "related in an objective sense to the performance of the employment concerned", that is, if it appears to be reasonably justified under those policies, then that standard qualifies as a BFOR.

The Canadian Armed Forces state that their recruitment, training and employment policies are an essential element in carrying out their mandate of national defence and support of the civil authority. We received detailed evidence from Lieutenant-Colonel John Tattersall of the National Defence Headquarters in Ottawa about the organization of the Armed Forces both within Canada and around the world. He distinguished between members of the Forces and civilian personnel, who are employees of the Department of National Defence but not employees of the Armed Forces. Colonel Tattersall described the extensive use made of civilian personnel where military training and skills are not needed. These employees generally work on Canadian Forces Bases and at headquarters but not in potential combat situations such as on navy vessels or aircraft. There are about 85,000 members of the Forces and a further 33,000 civilian employees of the Department of National Defence. This arrangement operates on the premiss that civilians are employed where military training and discipline is not essential.

In contrast to the roles of civilians, we received evidence that the policy of the Armed Forces requires every recruit to receive basic military training in the handling of weapons, in field training and base defence. Captain Metro Macknie of the Directorate of Occupational Structures, gave the following evidence:

All Canadian Forces personnel must be capable of serving under a wide variety of conditions without option... There are many areas where all individuals must be soldiers first and tradesmen second. Therefore, the requirement for Forces is to train these individuals to be soldiers first.

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This policy leads to conclusion that basic training comes before occupational training. For all new recruits, basic training, including combat field training, long marches and the competent use of weapons -- in particular, of the standard "FD-CN1 A 1" army rifle -- is compulsory. The Forces can thus maintain what they consider an essential option of posting soldiers wherever national defence priorities dictate, with confidence that all have met the minimum training requirements. The Armed Forces claim that without this flexibility their limited numbers would not enable them to carry out their mandate.

In our opinion, the policy of the Canadian Armed Forces, as explained to this tribunal, has a rational basis and appears reasonably necessary for the purposes of national defence. The complainant has not suggested a satisfactory alternative basis on which to reach a different conclusion. We find, therefore, that since it is reasonable to require all recruits to complete basic training successfully, Mr. Ede should also be required to do so.

If we assume that the complainant could successfully complete basic training, and that he then moved on to occupational training as a vehicle technician, ought he to be excused from the normal requirement that all technicians must be trained and be competent to drive vehicles? Counsel for the complainant argued that since it was admitted that technicians normally work in teams of two, the second technician could always test drive a vehicle that needs servicing or repairs, both before and after it has been worked on. Accordingly, there would be minimal, indeed negligible, inefficiency in excusing Mr. Ede from learning to drive Armed Forces vehicles.

The Forces replied that the above argument oversimplified the role of vehicle technicians. Frequently, a technician who has completed the work on a vehicle must deliver it a long distance away to another unit, leaving the other member of the team alone. On small stations, where there may well be only two technicians, if one technician makes a long distance delivery -- or is disabled

by injury or illness -- there will be only one technician left at the station. In combat conditions a technician trying to retrieve a vehicle may be wounded. It would be unacceptable for a station to be left with only one technician who had been excused from learning to drive and was unable to do so. Moreover, the Forces objected to the general restrictions on their flexibility in posting technicians that would result from some of their number being excused from qualifying as competent drivers.

We find persuasive the reply of the Armed Forces that it is reasonable to require vehicle technicians to be competent to

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drive the diverse vehicles they must service and repair. Accordingly, the Forces are entitled to require Mr. Ede to become a competent driver of these vehicles in order to qualify as a vehicle technician.

In summary then, on the argument that tasks could be reallocated among members of the Armed Forces without serious disruption, the Forces have satisfied this tribunal that all recruits, including the complainant, should meet the basic training requirements, and that all trainees for vehicle technicians should meet occupational training requirement of learning to drive competently. In the result, we do not accept the complainant's submission that the minimum height standard is not a bona fide occupational requirement because Mr. Ede can reasonably be excused from basic training and from learning to drive Canadian Armed Forces land vehicles.

#### ARE THERE DANGEROUS RISKS AND INEFFICIENCY?

The second submission on behalf of the complainant is that the respondent has not demonstrated that a person 143 cm. tall cannot safely and efficiently carry out the required tasks of basic and occupational training. In the absence of such evidence, Mr. Ede, like any other recruit, should have been given the chance to prove himself in basic training and in training for his chosen trade.

#### Basic Equipment

The Armed Forces presented detailed and exhaustive evidence concerning the design of clothing, from dress uniforms and work clothes to protective clothing against lethal chemicals and radiation, to helmets, backpacks and boots. The tribunal also visited



a Canadian Armed Forces installation known as Land Engineering Test Establishment and witnessed a demonstration by a model -- very slightly taller than the complainant -- holding the standard army rifle in prone, kneeling and standing firing positions. The demonstration was repeated by a soldier about 158 cm. (5' 2") tall, that is, about 15 cm. (6 ") taller than the complainant and 6 cm. (2.4") above the current minimum height standard. Evidence was submitted to explain the bases used in recent years for all types of designs to fit the human figure. The study of the human figure for these purposes is called an "anthropometric" study. The creation of the designs themselves, whether it be clothing, chairs, ladders and staircases, machinery or vehicles, is called "human engineering" or, in Europe, "ergonomics". A leading publication employed by the Department of National Defence is called "Humanscale 1/2/3". This manual provides more than 20,000 bits of information on the physical dimensions of cross-sections of the American population. We quote from page 4 of the manual:

For a design to be successful, it must fit the people relying on it for space accommodation, seating comfort, ease of

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operation, work efficiency and safety. A design built for just the average male or female will not necessarily work well for large and small people. It may be too small for the large person, and the small person may not be able to make the required reaches. On the other hand, to include the extremes -- the very large and small people -- is also impractical, for it is very nearly impossible to cover this range in a single design without jeopardizing the comfort, efficiency, or safety of the majority. Thus it is necessary to decide on what percentage of the group should be considered.

The manual goes on to note that designs for the armed forces cover 90 percent of the population -- from smallest to largest, between the 5 and the 95 percentiles.

This range is used by the U.S. Armed Forces and by Canada; other NATO countries appear to use a slightly narrower range. Denmark has a taller maximum, apparently because Danish recruits are somewhat taller, and Turkey a slightly lower minimum because Turkish recruits are a little smaller. Covering 90 percent of the

population within their design range seems to be the maximum that can reasonably be accomplished by these various armed forces, keeping in mind the restraints noted in the quotation above and the initial very high cost of much armed forces materiel.

It is these ergonomic design limits that govern the minimum size of such critical gear as protective clothing, backpacks and rifles. As noted earlier, we witnessed the attempts by a very short person to hold the standard army rifle supplied with shortest butt. The statements by Armed Forces specialists that such a person could not effectively and safely fire the rifle were borne out by the demonstration: that person could not keep the rifle properly supported in a horizontal firing position to aim correctly, and risked injury to the face when the rifle recoiled. The explanations provided with respect to the unstable backpack, unsupported at hip level, also seemed to express a reasonable concern for the safety and effectiveness of a wearer who is shorter than the minimum height.

We were not persuaded that sizes available in ordinary clothes, whether dress uniforms or working clothing, raised problems of efficiency or of adaptation. The unavailability of protective clothing in very small sizes raises a more serious problem of danger to those who might need them. However, the evidence presented to us concerning the likelihood of these risks was not as persuasive as that presented with respect to the use of the standard army rifle and the backpack.

Taking the cumulative effects of the evidence regarding equipment required to be worn and used by recruits, we find that the respondents have met the burden of establishing that there would be unacceptable risks for recruits as short as the complainant, both for themselves and for colleagues, in fulfilling the training requirements of the Armed Forces.

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## Land Vehicles

The second concern of Armed Forces was that a very short person acting as a vehicle technician could not safely drive most of their land vehicles. During the tribunal's visit to the Land Engineering Test Establishment, the model, who was just slightly taller than the complainant, sat in the driver's seat of a wide array of standard vehicles -- twelve in all -- varying in size

from the ILTIS jeep, to the 5/4 ton pick-up truck, to the 10-tonne wrecker truck, Leopard tank and Armoured Personnel Carrier. With the seat adjusted just low enough to permit the model to reach the pedals, in most vehicles the model had inadequate vision for safe driving. Sometimes the steering wheel interfered with forward vision. Measurements were taken with respect to the closest point at ground level in front of the vehicle that the model could see -- a distance explained to be very important for safety reasons. In most cases, the model could not see close enough to the vehicle for avoiding obstructions. Sometimes, side vision, especially in armoured vehicles was obstructed. The tribunal examined the inside of the vehicles including their structure, and had a 15-minute demonstration ride in an armoured personnel carrier over moderately rough terrain at low speed. It was evident to us -- as explained in the Humanscale 1/2/3 manual -- that the structure in many vehicles, and especially the armoured ones, simply could not cover a full range of heights by adjusting the driver's seat: the model could not reach the pedals and at the same time have head and shoulders high enough to resist facial bruising and see over the front and sides of the vehicle.

Accordingly, the evidence presented by the Armed Forces satisfactorily met the burden of demonstrating that a person as short as Mr. Ede could not safely and effectively drive many if not most of the current array of land vehicles employed by the Forces.

#### IS IT PRACTICAL TO MODIFY EQUIPMENT AND VEHICLES OR PURCHASE NEW ONES?

We have held that the compulsory requirements of the Armed Forces -- for all recruits with respect to basic training, and in addition, for all vehicle technicians with respect to driving training -- are reasonable. We have also found that the Armed Forces' concerns over the risks of injury and ineffectiveness of operation for very short persons in the use equipment and vehicles to be well founded. These conclusions bring us to the third and last submission of the complainant, namely, that the Forces have failed to demonstrate that equipment and vehicles cannot be modified to accommodate very short recruits like Mr. Ede, without undue hardship to the Canadian Armed Forces.

Here we must note that if an occupational requirement is found to have been imposed in good faith and on reasonable grounds, the Supreme Court of Canada has held that a duty to accommodate does not exist. In *Bhinder*, the Court acknowledged that the religious beliefs of an employee of the Sikh religion did not allow him to wear headgear other than a turban. The issue was whether his employer, having established that compulsory wearing of a safety helmet on the job was a bona fide occupational requirement, nevertheless had a duty to accommodate the employee by exempting him from that requirement. McIntyre, J., for the majority, stated:

The duty to accommodate will arise in such a case as *O'Malley*, where there is adverse effect discrimination on the basis of religion and where there is bona fide occupational requirement defence. The duty to accommodate is a duty imposed on the employer to take reasonable steps short of undue hardship to accommodate the religious practices of the employee when the employee has suffered or will suffer discrimination from a working rule or condition. The bona fide occupational requirement defence set out in s. 14(a) [now 15(a)] leaves no room for any such duty for, by its clear terms where bona fide occupational requirement exists, no discriminatory practice has occurred. As framed in the Canadian Human Rights Act, the bona fide occupational requirement defence when established forecloses any duty to accommodate.

In her concurring opinion, Wilson, J., added:

The purpose of s. 14(a) [now 15(a)] seems to me to be to make the requirement of the job prevail over the requirement of the employee. It negates any duty to accommodate by stating that it is not a discriminatory practice. I agree with McIntyre, J. that discrimination is per se victim related. This is, I believe, why s. 14(a) provides that a genuine occupational requirement is not a discriminatory practice as opposed to making it a defence to a charge of discrimination which would enable the employer to establish that he had discharged his duty to accommodate the particular complainant up to the point of undue hardship.

The legislature, in my view, by narrowing the scope of what constitutes discrimination has permitted genuine job-related requirements to stand even if they have the effect of disqualifying some persons for those jobs.

In light of these findings that there is no duty to accommodate, the only basis upon which we might consider the final submission of the complainant is that, because the required equipment and vehicles could be rectified at a relatively minor cost, the Forces the Canadian Armed Forces did not have reasonable grounds for a BFOR in the first place.

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If cost, no matter how great, was no objection then perhaps almost all equipment and vehicles could be redesigned to accommodate very short recruits. Even then, there would still remain doubts: For ergonomic reasons, is it feasible for a single design to accommodate persons beyond either end of the current standards of the 5th and 95th percentiles -- persons as short as or shorter than Mr. Ede, and taller than the present maximum height? Could redesign and manufacture of equipment and vehicles be done in time for Mr. Ede's career to proceed -- it would take a long time to design, manufacture and deliver a complete inventory of new vehicles for the Armed Forces? And could the Forces dispose of their whole current stock of vehicles that cannot accommodate very short people? In our opinion, the Forces need not satisfy the burden of establishing negative answers to these questions. It is sufficient that they raise reasonable doubts about the feasibility of overcoming these large problems.

In any event, cost, time and effort are legitimate factors to any employer including the Canadian Armed Forces. In our view, the Forces need only establish reasonable grounds for believing that the costs might well be substantial. The decision in *Bhinder* relieves them of the greater burden of accommodating every potential individual employee.

Two examples of increased cost and effort in redesign and manufacture will suffice:

The standard "FD-CN1 A 1" army rifle. This semi-automatic weapon can be fitted with four butts to accommodate different heights and arm lengths. Chief Warrant Officer J.C. Sweet, who was responsible for the maintenance and repair of all land weapons, gave evidence that the short butt is the shortest that can be fitted to the rifle: the butt houses a spring-loaded steel gas chamber that recocks the rifle; the chamber extends to the very end of the short butt; to fit a shorter butt would require sub-

stantial redesign and remanufacture of the rifle. Such a task would be a major one.

Motor vehicles. Virtually all non-armoured vehicles are designed and manufactured by large civilian motor vehicles builders. The total number purchased by the Armed Forces, at most several thousand, is small, and is proportionately insignificant to the large manufacturers. Lieutenant-Colonel Edward Galea, a mechanical engineer with lengthy experience in military land vehicle maintenance as well as vehicle purchase and modification, gave evidence that the producers of these vehicles, manufactured primarily for civilian use and for much larger armed forces of other NATO countries, are unwilling to make major modifications for Canada. Indeed, they will not even apply non-standard paints; the Forces must repaint the vehicles themselves, and must also do such alterations as installing special combat electrical systems. Accordingly, it was the considered opinion of his branch that these manufacturers would not entertain substantial redesign of the bodies of vehicles to accommodate persons who are below the 95th percentile in height. The Forces themselves do not have the resources to design and build the diverse vehicles they employ.

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He gave the same opinion with respect to armoured and combat vehicles designed to NATO standards: the manufacturers would not consider their redesign for the small number the Canadian Armed Forces would need.

Counsel for the Commission objected that these opinions were mere conjecture and that no requests had been made for redesign. Accordingly, he submitted, the Forces had not met the burden of showing that accommodation was impractical or too expensive. We do not agree; the technical data and opinions based on them, as presented by the Forces, seemed eminently reasonable to this tribunal. In our view, the Forces' perception of the difficulties, financial and practical, in redesigning equipment and vehicles to accommodate persons who are clearly shorter than the current minimum standards for admission to the Forces appears well founded.

## DECISION

With regard to the burden to be met by the respondents, it must be recalled that the standard is that of reasonable grounds for

believing that the redesign and manufacture of vehicles and equipment is not feasible, and they have met this standard. For the above reasons we dismiss the complaint.

N. Diffrient, A.R. Tilley and J.C. Bardagly. Cambridge, Mass., MIT Press, 1974.

Footnote 5, *supra*, at 590.