

Permission to Dream *International Astronomy Education*

PROGRESS UPDATE AND ANNUAL REPORT

Fall 2003



Permission to Dream
12714 Matteson Ave.
Suite 5
Los Angeles, CA
90066
T: (626) 833-5869
F: (413) 604-0142

www.permissiontodream.org
director@permissiontodream.org



TABLE OF CONTENTS

Permission to Dream Fact Sheet

Introduction to Permission to Dream

Highlights of the Year

New Telescope Donations

Curriculum Development

New Partnerships and Affiliations

New Grants

New Initiatives

Conclusion



A student in Pokhara, Nepal, observes through a Permission to Dream telescope. Picture courtesy of teachers of the Nawa Prabhat School. October, 2003.



Dr. Craig Singer, director of the Orville Wright Magnet Program in Los Angeles, accepts the school's new PTD telescope with the school librarian. May, 2003.

PERMISSION TO DREAM FACT SHEET

Identity:

International science education NGO that uses astronomy to inspire and motivate children around the world, and to connect them across national boundaries.

Founded: 2001

Number of Schools Involved: 33

Number of Countries Involved: 15

Countries to date: United States, Russia, China, Australia, Algeria, Brazil, Chile, Croatia, Iran, Israel, Nepal, Pakistan, Sri Lanka, South Africa, Zambia.

Board of Advisors: Dr. Buzz Aldrin
Dr. Alan Hale
Frank Braun
George Whitesides

Major Sponsors: Ahmanson Foundation
Keller Family Foundation
Space Frontier Foundation
National Space Society
Meade Telescopes
Starry Night Software
Dr. Pascal Lee
Lufthansa

Website: www.permissiontodream.org

Partners / Advisors: Arthur C. Clarke Institute for
Telecommunications
Space Generation Advisory
Council
Cosmos Education
Southwest Institute for Space
Research.

INTRODUCTION TO PERMISSION TO DREAM

Permission to Dream is an international science education project that seeks to inspire and motivate children through astronomy and space. Based in Los Angeles, PTD's main program activity is the donation of telescopes, curriculum and astronomy materials to disadvantaged student groups in the U.S. and around the world.

To date, PTD has sent telescopes to 33 schools or groups distributed across 15 countries and 6 continents. Some groups have received multiple telescopes. These telescope donations are augmented by other materials such as star charts and astronomy software. PTD has also created a six-part curriculum that guides students through an exploration of the night sky. This curriculum includes teachers guides and assignments, and is appropriate for learners from late primary school to early university. It covers the moon, Mars, Jupiter, Saturn, Venus, and the International Space Station, as well as a preliminary introduction to using a telescope.

The pedagogic philosophy that drives PTD is experiential education. We seek to give teachers tools to spark excitement in their students, which will motivate them in their in-class work. Where appropriate, we also seek to augment existing space-based curriculum. Finally, by connecting participating schools through the internet, we seek to encourage international communication, to raise awareness of our common heritage in the night sky, and to spread the culture of peace through space education.



A student in Rio de Janeiro observes through a telescope courtesy of Permission to Dream. February, 2003.

HIGHLIGHTS OF THE YEAR

Thanks to the generous support of PTD's sponsors, the program accomplished a wide variety of new initiatives during the last year. Funds were used to:

- Ship telescopes to schools in eight new countries,
- Begin two new school partnerships in Los Angeles,
- Develop and refine the PTD astronomy exploration curriculum.
- Launch a new initiative in community planetariums.

The last year also marked several important milestones for the organization:

- Dr. Edwin ('Buzz') Aldrin, Apollo astronaut, joined the PTD board of advisors.
- A major fiscal grant was made by the Ahmanson Foundation.
- An additional 50 new telescopes were donated by Meade Corporation.

- Partnership agreement signed with the National Space Society, a Washington, D.C. based space organization with over 10,000 members.
- Meetings with the Deputy Director General of UNESCO and the heads of different UNESCO divisions about our programs.
- Major program organized in cooperation with World Space Week, including national press coverage and celebrity Lance Bass.

NEW TELESCOPE DONATIONS

One of the biggest challenges Permission to Dream faces is the transport of telescopes and additional materials to other countries. New grants enabled us to ship 21 telescopes around the world, to eight different countries: Australia, Algeria, Brazil, Russia, China, Israel, Nepal, and Pakistan.

In addition, Permission to Dream launched two new Los Angeles partnerships, with the Orville Wright Magnet School and the Westchester Aerospace Magnet School. PTD is looking forward to building these programs into local centers of astronomy excellence over the coming school year.

While each new school brings important lessons and stories, we would like to highlight one group in particular – the Nepal astronomy group GASPRO – as an example of the dedication and bravery people have shown in the face of local challenges.

PTD donated its first telescope in Nepal to a group of committed amateur astronomers during the spring of 2003. PTD has been working closely with this group since the donation on its astronomy program, despite the ongoing civil war that has been raging inside the country. The PTD group has had to restrict its viewing to inside the capital city, for fear of being attacked by Maoist rebels. Yet they have persevered, and done some of the best work of the PTD network. Such bravery has been demonstrated time and again by different groups in challenging circumstances, including those in Brazil and Iran.

A full list of participating schools and groups is below. Note that certain groups have received multiple telescopes.



Students and teachers of the Sirius Astronomy Organization of Constantine, Algeria, at a ceremony to receive their telescope donated by Permission to Dream. March 2003.

Country	City	School
US	Los Angeles, CA	Westchester Aerospace Magnet School
US	Los Angeles, CA	Orville Wright Magnet School
US	Los Angeles, CA	A-MAN Science Discovery and Learning Center
US	Cloudcroft, NM	Cloudcroft Elementary School
US	Houston, TX	Sam Rayburn Sr. High School
US	Houston, TX	Ortiz Middle School
US	Houston, TX	Ed White Elementary
South Africa	Cape Town	Ysterplaat Primary School
South Africa	Cape Town	Fezeka Senior Secondary School
Algeria	Constantine	Sirius Astronomy Association
Zambia	Lusaka	Nkhwazi Primary School
Zambia	Lusaka	University of Zambia
Chile	Talcahuano	Colegio Etchegoyen
Chile	Coyhaique	Liceo Fiscal B-2 Josephina Aguirre Montenegro
Brazil	Rio de Janeiro	CECIERJ Foundation
Brazil	Rio de Janeiro	GLOBO Youth Center
Brazil	Rio de Janeiro	Mangiera Community Center
Brazil	Rio de Janeiro	Brazilian Astronomy Olympiad
China	Yangzhou	Yangzhou Primary School District
Sri Lanka	Colombo	Arthur C. Clarke Institute for Modern Technology
Pakistan	Karachi	IY Working Group
Nepal	Pokhara	Nepal Centre for Development Practice
Iran	Tehran	Nojum Magazine [Iran's only astronomy journal]
Iran	Sa'adat Shahr	Salman Farsi Guidance School
Israel	Central Israel	Rishon Letzion city schools
Australia	New South Wales	Arndell Anglican College
Australia	Queensland	Moranbah Secondary High School
Russia	Murmansk	Geophysical Observatory Loparskaya PGI
Russia	Moscow	Moscow Aviation Institute affiliated high school
Croatia	Valpovo	ANONYMUS Astronomy Club

CURRICULUM DEVELOPMENT

Donor grants also helped develop and refine the Permission to Dream astronomy curriculum, which are called ‘Missions’. This curriculum is stored online, and includes student handouts, teacher guides, and lesson plans. The materials have also been translated into Spanish. PTD hopes to translate these materials into other languages over the coming year.

The curriculum spans a range of astronomy observation lessons, from how to assemble, align and operate the telescope, to missions that ask the students to explore the craters of the moon, the rings of Saturn, and the moons of Jupiter. The titles of these lessons are below:

- Mission 1: **‘So You’ve Got a Telescope ...’**
Detailed instructions regarding telescope assembly
- Mission 2: **Apollo 11 Lunar Landing**
Asks students to navigate and map the lunar surface to identify the Apollo 11 landing site
- Mission 3: **Life on Mars?**
Asks students to locate Mars and to learn about its chemical composition, while investigating basic astrobiology
- Mission 4: **Jupiter and the Galilean Moons**
Asks students to map the Galilean moons of Jupiter over several evenings and to learn the history of early astronomy.
- Mission 5: **The International Space Station**
Asks students to learn about the ISS.
- Mission 6: **Venus**
Asks students to map the crescent of Venus, and learn about phases of planetary objects. Also to learn about the mythology of Venus and its surface chemistry.
- Mission 7: **Saturn**
Asks students to learn about the Cassini mission, which will arrive at Saturn in 2004. Also, to learn about the nature of Saturn’s rings.

NEW PARTNERSHIPS AND AFFILIATIONS

During 2003, Permission to Dream entered into a range of new partnership agreements to increase its scope and reach. We hope to build on these relationships as we grow and develop as an organization.

National Space Society

PTD signed an agreement creating a partnership with the National Space Society. NSS is one of the largest and most respected space advocacy groups, with over 10,000 members across the country. Under the agreement, NSS will provide fundraising support to PTD, and PTD will work to increase its outreach efforts through the NSS network.

Brazil: Cecierj Foundation and the Astronomy Olympiad of Brazil

PTD has begun a major new initiative in Brazil. Its primary partner is the Cecierj Foundation, a prominent science education group based in Rio de Janeiro. Working with Cecierj, PTD is donating scopes to schools and planetariums in the state of Rio. So far, PTD has donated six telescopes to Cecierj. PTD is also planning a telescope loan project

in collaboration with the Astronomy Olympiad of Brazil. The concept is to institute a lending library of telescopes which will be managed by the Astronomy Olympiad.

UNESCO

In February, PTD met with UNESCO leadership at its headquarters in Paris. The Deputy Director General of UNESCO, Dr. Marcio Barbosa, was present. PTD staff presented the program's current work and future plans.

Cosmos Education

For the third year, PTD has continued its partnership with Cosmos Education, a non-profit organization which conducts science education in southern Africa. PTD donated a telescope to the expedition, which was donated to a university professor in Zambia.

Moscow Aviation Institute

PTD staff met with the director of the MAI's Aerospace College in February. We donated a telescope to the affiliated high school network of MAI, one of the most respected center of space technology in Russia. PTD staff hope to expand this collaboration over the coming year.



The Director of the Aerospace College of the Moscow Aviation Institute with George Whitesides, PTD founder. PTD donated a telescope to the secondary school program of MAI in February 2003.

NEW GRANTS

Meade Corporation

Following their initial grant of over 40 telescopes in 2001, Meade Corporation made an additional donation of 50 new telescopes to PTD in 2003. Meade has been a supporter of PTD from the beginning, and we continue to work with Meade's VP of National Sales, Scott Roberts, on opportunities for further outreach.

Ahmanson Foundation

Permission to Dream received a major grant from the Ahmanson Foundation. This foundation is a major feature in the American philanthropic landscape, and funds a variety of educational initiatives in Los Angeles and around the country. PTD hopes to continue to work with the Ahmanson Foundation to meet the needs of kids in Los Angeles and around the world.

NEW INITIATIVES:

Community Planetariums

In August 2003, PTD principals went to Brazil to study community planetariums that had been constructed in the state of Rio de Janeiro. These planetariums, described in more detail below, were built for low cost, yet succeed in reaching a large number of local children.

The planetariums are ideal space education centers for the developing world. They combine experiential education with a permanent base and staff, enabling ongoing education into the foreseeable future.

The goals of the study were to research how the planetariums were constructed, including the public/private cooperative partnerships required; how successful the planetariums had been in teaching students; and how the concept of the planetariums might best be transferred to other regions and countries.

For the study, the PTD staff interviewed local government officials, national government officials, representatives of affiliated foundations, the designers of the planetariums, and the planetarium staffs themselves. On-site visits to two planetariums were made, and photographic surveys conducted. PTD staff derived a comprehensive view of the process through which the planetariums were created.

Our results indicate that the cost-benefit ratio of these centers is high: that is, the communities and the state derive high value from relatively low expenditure. Further, it seems clear that the design is eminently suited to transfer to other regions.

World Space Week

World Space Week is a UN-sponsored commemoration of space that is held every October. This year, Permission to Dream contributed to a cooperative program with the WSW leadership. PTD donated telescopes to three Houston-area schools. The celebrity youth spokesperson of the week was Lance Bass, a singer in the popular singer group



A community planetarium in Paracambi, Brazil. It was built for low cost, yet is highly effective at teaching students astronomy concepts. This planetarium is paired with a local community science center that is on the same grounds. August 2003.

N*SYNC and an aspiring space tourist. The week was a success, with prominent news coverage in local and national media outlets.

WEBSITE

Ahmanson Funds also contributed to the upgrading of the Permission to Dream website. New sections of the Team Telescope program have been added, and a new bulletin board system is being developed.

CONCLUSION

2003 has been a year of growth and new initiatives for Permission to Dream. Our work is made possible by the support of our generous donors, and we are deeply grateful for it. By expanding into over 20 new school groups, eight new countries, and establishing new collaborations with world-class organizations, we aspire to set up a stable platform for sustained operations. We look forward to bringing the wonder of space and the 'planetary perspective' to more kids here in Los Angeles and around the world in 2004!



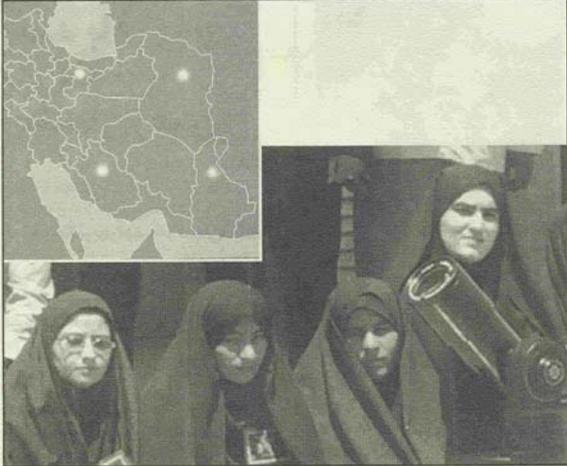
World Space Week youth spokesperson Lance Bass presents a PT D telescope to teachers at the Sam Rayburn High School in Houston Texas. October 2003.



Students of the Manguera Astronomy Club in Rio de Janeiro, Brazil, with their PT D telescope. The club was formed around the telescope and now conducts regular astronomy observing sessions in one of Rio's poorest areas.

APPENDIX

As a closing note, we just had to show you this. It is a page from *Nojum*, Iran's only astronomy magazine, describing Permission to Dream's donations to the country, including a map of locations in upper left. (The donations were made in cooperation with the LA Astronomical Society, and its representative Mike Simmons.) As you can see, it is in Persian. Many of Iran's amateur astronomers are women, as the picture suggests! We have many more pictures from all our participating countries online, and we encourage you to take a look at these pictures at www.permissiontodream.org. We hope that our beginning efforts in Iran, Israel, Algeria and Pakistan begin to provide a small measure of international connection in the troubled Middle East.



عکس از حسن حسینی میوه‌ای

یکی از چهار تلسکوپ اهدایی در اختیار گروه نجوم دبیرستان دخترانه روستای رباط سنگ خراسان قرار گرفت و سه تلسکوپ دیگر به شهرهای زاهدان، سمنان، شهر و تهران فرستاده شد.

چهار تلسکوپ و چهار استان

چهار تلسکوپ آماتوری اهدا شده به گروه‌های نجومی و دانش‌آموزان ایران از طرف شاخه آماتوری انجمن نجومی ایران. در این چهار استان سمنان، سمنان، سمنان، سمنان دو تلسکوپ ماکستوف - کلسرین ۹۰ میلی‌متری از طرف طرح آموزشی Permission to Dream به ایران فرستاده شد. تاکنون این تلسکوپ‌ها در اختیار چند مدرسه سعادت شهر فارس و تهران قرار گرفت. دو تلسکوپ ۶۰ میلی‌متری با دستگاه جستجوگر اجرام آسمانی نیز از طرف جیم استروژن (Jim Strogon) در انجمن نجوم لس‌آنجلس (LAAS) اهدا شده‌اند که به مدت حداقل یک سال در اختیار گروه نجوم روستای رباط سنگ و انجمن نجوم خیام زاهدان قرار گرفت. امیدواریم که از این تلسکوپ‌های کوچک در حد امکان برای گسترش نجوم آماتوری در ایران استفاده شود.

چند خبر کوتاه

دو اصفهان، انجمن نجوم اخترش با همکاری سایرین، رصدی عمومی ناستانه خود را در پارک‌های اصفهان و شهرهای دیگر این استان انجام داد. به گفته احمدرضا کریمی، کارشناس بخش نجوم صنایع ایتیک اصفهان، این مرکز با حمایت از گروه‌های نجومی در ارائه تلسکوپ و دوربین‌های دوچشمی قصد دارد تا به گسترش فعالیت‌های نجوم آماتوری در ایران بپردازد.

کارگاه تقویم، با سخنرانی‌های محمدرضا صیاد،

پیمان‌نامه‌ای برای منجمان آماتور دومین همایش نجوم آماتوری با شرکت ۳۰۰ نفر از علاقه‌مندان به نجوم، روزهای ۲۳ تا ۲۵ مرداد در تالار کانون پرورش فکری کودکان و نوجوانان در خیابان حجاب تهران و با همکاری مرکز نجوم و رصد کانون پرورش فکری (رصدخانه زعفرانیه) و سازمان فرهنگی هنری شهرداری تهران برگزار شد. با وجود اطلاع‌رسانی دیرهنگام این همایش، منجمان آماتور بسیاری از تهران و شهرهای رشت، زاهدان، داراب، کرمانشاه، سمنان و اصفهان در این برنامه شرکت کردند. به گفته دبیر همایش، محمدرضا نوروزی (کارشناس نجوم رصدخانه زعفرانیه)، تمرکز سخنرانی‌های این برنامه بیشتر بر ساخت ابزارهای نجومی بوده است. به طوری که سخنرانی‌های کارگاه‌مانندی درباره ساخت تلسکوپ، موتور ردیاب برای تلسکوپ، ساخت طیف‌نگار و همچنین ساعت آفتابی ارائه شد. بنابه نظرخواهی از شرکت‌کنندگان، سخنرانی شایهین جعفرزاده درباره دستگاه‌های مختصات آسمان، بانک امین تفرشی درباره همکاری‌های بین‌المللی در نجوم آماتوری، اکبر نعمتی درباره هنرهای فضایی، نمایش اسلایدهای نجومی اشین زاگاریان و همچنین کارگاه محمد باقری در زمینه ساخت ساعت آفتابی، جذاب‌ترین برنامه‌های این همایش سه روزه بوده‌اند.

در پایان برنامه پیمان‌نامه‌ای در بین منجمان آماتور شرکت‌کننده امضا شد تا طی یک سال آینده که احتمالاً سومین همایش نجوم آماتوری در تهران برگزار شود، به‌موازاد زیر پایبند بمانند. ۱. علم را چون گوهری بالرش پاس‌بداریم و از راه نجوم به پیشرفت علم کمک کنیم. ۲. بیش از پیش در گروه‌های نجوم محلی خود فعال باشیم و از هیچ‌گونه کمکی دریغ نکنیم. همواره در فعالیت‌های گروهی، تفریح را از فعالیت علمی تمیز دهیم. ۳. دست‌کم دو کتاب نجومی و در هر ماه یک مقاله خارجی نجومی را به‌دقت مطالعه کنیم. ۴. دست‌کم یک مورد از آلاینده‌های نوری محیط زندگی مان را با دقت و وسواس علمی از میان ببریم. ۵. آموزش امری حساس و خطیر است، تا زمانی که صلاحیت‌مان برای آموزش نجوم از سوی مراکز معتبر تأیید نشده، دیگران را مورد آموزش مستقیم خود قرار ندهیم. ۶. دست‌کم دو نفر را به‌نجوم آماتوری علاقه‌مند کنیم و به‌گروه‌ها یا مؤسسات دارای صلاحیت معرفی کنیم. ۷. دست‌کم دو کتاب نجومی، دو نرم‌افزار یا اشتراک سالانه مجله نجوم را به‌کنایه‌ای اهدا کنیم. ۸. جهت اصلاح عقاید خرافی در زمینه نجوم تلاش کنیم. ۹. در هر صورت از گفتگوهای آزاد‌دهنده درباره منجمان آماتور دیگر بهره‌بریم. ۱۰. در سفرها و شب‌های رصدی خود با سرسختی در حفظ محیط زیست و میراث فرهنگی کشورمان کوشا باشیم.

۱۱ مهر ۱۳۸۱